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**DETERMINANTS OF ONLINE REVIEW HELPFULNESS THAT STEER CONSUMER  
PURCHASE DECISION AND THEIR WILLINGNESS TO GIVE REVIEW – AN  
EXTENDED STUDY IN A CROSS-CULTURAL CONTEXT**

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ABSTRACT OF THE MASTER'S THESIS

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<p>Abstract</p> <p>The increased use of social media and other online platforms have enabled consumers to communicate and discuss the products and services of brands with others. Consumers' look for information in online reviews that assist them in informed purchase decisions. Previous literature has identified factors that influence consumers in adopting those online reviews, but whether consumers are willing to provide an online review after the purchase decision is not yet been studied previously. Another gap in the literature that is addressed is to base this study on output obtained from two countries. Therefore, our study is aimed at identifying factors that contribute to a consumer purchase decision and their willingness to give a review in a cross-cultural context. Our study aimed at restaurant reviews in Finland and Pakistan.</p> <p>Adopting and extending the Information Acceptance Model (IACM) proposed by Erkan and Evans (2016), that is developed by integrating Information Adoption Model (IAM) and related aspects of Theory of Reasoned Action (TRA). This study examines the influence of online review helpfulness factors on consumer purchase decision, consequently influencing them to give a review to others. We also aim to identify if review adoption directly influences consumers in providing online review without purchasing the product or service.</p> <p>The proposed model of our study was validated through Structural Equation Modelling by using Smart Partial Least Squares software. A questionnaire was adopted from earlier studies. The questionnaire was measured on a sample size of 104 from Finland and 141 from Pakistan.</p> <p>This study identified review adoption leading towards consumer purchase decision, whereas, consumers' willingness to give is not directly linked with their adoption of information, but it is a post-purchase process. The commonalities between the two countries depict the needs of information behind seeking online review information. If the required information is being provided to the customer through online reviews, it will lead to review adoption.</p> <p>Generally, review positiveness, review perceived informativeness and review quality were identified most important factors in consumers review adoption that leads consumers in choosing a restaurant and try the food there. Whereas, the general attitude of consumers towards online reviews was found to be the most exciting factors identified in Pakistan output. Consumers' perception of online reviews encourages them to read online reviews, and they think that it is always a risk to try a restaurant without referring to online reviews. Pakistani consumers find online reviews useful, providing relevant information about the restaurants that help them in choosing the best restaurant.</p>			
<p>Keywords</p> <p>Online Reviews, eWOM, Purchase decision, Willingness to give review, Review Helpfulness, Information Adoption Model, Information Acceptance Model.</p>			
<p>Additional information</p> <p>This study is an extension of the model proposed by Erkan and Evans (2016). This extended model is applied in a cross-cultural context.</p>			

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## 1 INTRODUCTION

The Internet has provided us with platforms to give and seek views, opinions, and ideas on all the topics in our lives that we can imagine (Chen & Zimbra, 2010). With the use of the internet, people have changed their way of purchasing and the way they share their thoughts about the products (Grewal & Levy, 2009). For this modern generation, these opinions and reviews have become an electronic word of mouth (EWOM) (Bjering, Havro, & Moen, 2015). EWOM is more accessible for businesses to manage and track as compare to the traditional word of mouth (Tirunillai & Tellis, 2012). Its easy availability, accessibility and low cost have attracted the majority of customers that makes it the most important and impactful communication channel (Tirunillai & Tellis, 2012).

EWOM is an umbrella term used for online reviews has gained noticeable attention from businesses (Stephen, 2016). Consumers direct themselves towards reviews posted online by other users before going for a purchase decision. Online customer reviews are used by businesses to understand customer purchasing habits and attitudes of online information seekers (Li & Hitt, 2010). User-generated reviews are more credible and advantageous than the content created by companies and firms (Bickart & Schindler, 2001; Bronner & de Hoog, 2010) especially service industries that we experience like hotels and restaurants (Bronner & de Hoog, 2010). The importance of user-generated content is higher than the content created by firms forms the basis of this research. This study aims to identify the usefulness of online user-generated content determinants on adoption that leads to a consumer purchase decision and their likelihood to recommend product or service to others based on their satisfaction level.

Online reviews are an essential part of electronic commerce and the internet (Moe & Trusov, 2011). Due to effortless access to the internet, today, consumers have access to numerous amounts of online reviews available to make informed purchase decisions. Consumers can choose the most suitable product or service for their use by referring to other consumer experiences available online (Moe & Trusov, 2011). These personal experiences of users explain the quality and performance of products to potential customers, which results in less risk in choosing the wrong product (Cui, Lui, & Guo, 2012; Zhu & Zhang, 2010) and also, it helps in developing good B2C relations (Chevalier & Mayzlin, 2006). Consumers have an opportunity to directly

communicate with firms and firms obtain feedback from customers to provide the best possible services to them, which results in excellent and robust B2C relationships.

Online reviews have become very important for many businesses, traditional and electronic, as these reviews by consumers can make any business a success or a fail (Anderson & Magruder, 2012; Chen & Xie, 2008; Chevalier & Mayzlin, 2006; Hu, Zhang, & Pavlou, 2009; Li & Hitt, 2010). Online reviews are vital for businesses to evaluate their products and services that might provide them with useful insights on customers' concerns and acquire market intelligence data (Forman, Ghose, & Wiesenfeld, 2008; Huang, Chen, Yen, & Tran, 2015). Some researchers believe, online reviews influence product sales of some categories of products under certain situations (Chen, Dhanasobhon, & Smith, 2007; Duan, Gu, & Whinston, 2008; Forman, Ghose, & Wiesenfeld, 2008).

Online customer reviews have become a challenge for brand management in online retailing businesses as it showcases the reputation of a brand on online platforms (Kostyra, Reiner, Natter & Klapper, 2016). By dealing delicately and carefully with the online reviews and increasing the frequency of positive reviews that can benefit the brand will help brand managers in building a positive reputation for the brand. This study intends to assist managers in understanding the drivers of consumers' intention to choose a service based on online reviews to form a positive brand reputation among consumers. Some consumers develop an emotional attachment with the brand through online reviews which results in brand loyalty. Then those loyal customers will prefer that brand over the others and are not affected by negative online reviews (Kostyra et al., 2016).

A positive online product review is undoubtedly beneficial for the brand, whereas a negative or critical review encourages customer service to work effectively. Online reviews have become powerful that can make or break a business, and it can result in an opportunity or a threat to companies (Yan, Wang, & Chau, 2015). Some opinions are helpful to decide whether or not to buy a product (Cheung, Lee, & Rabjohn 2008), a review which is considered valuable for consumers is an excellent utility to decide while making a purchase decision (Huang, Chen, Yen, & Tran, 2015). Everyone is posting reviews about products online, which has made it difficult for consumers to evaluate a product because of information overload (Liu, Huang, An, & Xu, 2008;



Samha, Li, & Zhang, 2014). Websites like Amazon.com, asks users whether a review has been helpful for them or not and then Amazon's system ranks that review according to the votes it gets (Anderson & Magruder, 2012). Not all reviews posted online are helpful for consumers except for those that have enough information for which customers are looking.

Online reviews make customers aware of the products and services and help them in making well-informed decisions. Websites and other portals used mainly for generating helpful user reviews are attracting more customers by providing them with the necessary potential information regarding the products and service (Malik & Hussain, 2018). With the help of such reviews, customers are satisfied with their purchases (Kohli, Devaraj, & Mehmood, 2004; Qazi, 2016).

### **1.1 Foundation of the study**

Consumers seek information about a product before purchasing, and we know that online reviews attract a significant number of consumers by providing them with the information they need to evaluate the overall quality and performance of the product of service. Therefore, to understand the behaviour of consumers towards online reviews, this study adapts model from Erkan and Evans, (2016) named as Information Acceptance model (IACM). This model is the combination of Information Adoption model (IAM) and some aspects of the Theory of Reasoned Action (TRA). We further extended the IACM model to add a few more elements of online reviews and one additional characteristic of consumer behaviour. This study claims to investigate the effect of online review factors on consumer purchase decision and their willingness to give a review, which means to recommend the product to others in a cross-cultural context. The IACM not tested in a cross-cultural context yet, so this study aims to test this model in such regard.

An extended application of IACM in a cross-cultural setting aims to provide insights from two separate population groups that offer an understanding of consumer purchase behaviour comparable between two countries. The proposed extension of IACM carries this study a step further, as it examines the willingness of consumers to give a review after reading online reviews. Moreover, the proposed model is based on seven independent factors to evaluate the adoption of a review that leads to a consumer

purchase decision and their willingness to give a review. This study will allow marketers to understand the aspects of online review helpfulness on the internet to help them in developing better marketing strategies.

## **1.2 Online consumer discussion forums – Traditional vs Electronic WOM**

Online discussion forums provide customers with online virtual platforms to discuss products, their benefits, and advantages and give their opinions through the internet. These forums have converted WOM activities into eWOM (Evans, Wedande, Ralston, & van't Hul, 2001). Online sharing of ideas and opinions has differentiated eWOM from Traditional WOM in various ways. First, the reach of traditional WOM was limited and slow; people used to share their product or service related experiences with personal relationships only. Whereas eWOM has a broader and stronger reach, and it is faster to grab the attention of the broader audience on the internet. Second, eWOM dispenses with the confinements on time and location. These prolonged discussions are deliberate so that other users can participate, which has allowed consumers to read and react to reviews at their own pace (Donna & Novak, 1997). Consumers always have unlimited access to a massive number of online reviews. Due to its easy access and availability, online reviews are attracting broad audiences and have become the most favoured source of consumer recommendations on the internet. However, people are becoming more reliant on online reviews to make purchase decisions, though, they are worried about its authenticity as unknown users post fake and false comments regarding products and services. Therefore, the credibility of online reviews and reviewers are of utmost importance to the receivers of information on online platforms. Consumers critically evaluate the information they get from eWOM, unlike traditional WOM that comes from family and friends, and trusted without having any doubts. Meanwhile, the internet gives access to numerous ways of evaluating the authenticity and credibility of online reviews. Consequently, when consumers process the information obtained from eWOM online platforms, in addition to considering traditional information elements, they utilize normative cues found on the internet to judge the credibility of the message.

In recent years, researchers have developed a considerable interest in online consumer reviews. A strong network of information sharing comprises of sender and receiver's interest in the information (Zhang, & Watts, 2003). Currently, studies have been

focusing on motivations and reasons behind online reviewing (Rafaeli, & Raban, 2005). Information receiver perspective has been discussed rarely in studies. However, online discussion forums are not only to facilitate consumers for sharing their perceptions regarding products and services, but it is a source of information for readers that can influence their purchase decision. More precisely, online product reviewers have the power to shape the behaviour of consumers toward a product or a service; thus, it has great potential to boost the overall sale of products. Thereby, sharing of opinions and ideas in the form of eWOM has many other benefits that are directly related to the sales of firms, hence, going beyond by not just being a virtual meeting place for consumers. Consumers prefer reading online review recommendations to save decision-making time that enables them to make well-informed purchase decisions (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004).

### **1.3 Problem Statement**

Korfiatis, Garcia-Bariocanal, and Sánchez-Alonso (2012) state that before going for a purchase decision, consumer opt for online reviews written by other users. Due to the massive expansion in social media and reviewing websites consumers now have the opportunity to share their experiences with products and services that have made online reviews valuable for the hospitality industry (Bigne, Chatzipanagiotou, & Ruiz, 2020). Online reviews help consumers in judging the value and outcome of services in the hospitality industry before actually experiencing it; thus, online reviews help consumers decide and choose a most suitable option by removing ambiguities customers might have (Fang, Ye, Kucukusta, & Law, 2016; Liu, Zhang, Law, & Zhang, 2019).

It has become a common practice between consumers to read online reviews and hugely rely on them before deciding to choose a service provider in tourism and hospitality industry (Ghose & Ipeiritis, 2011; Korfiatis et al., 2012). Restaurants are a part of the hospitality industry, and a little research is available to understand the dynamics of online review helpfulness impacting consumer purchase decision and their willingness to recommend others. The importance of online reviews in the hospitality industry is noticeable. So this study aims to investigate the different dynamics of online review helpfulness in terms of restaurants that allow consumers to adopt online reviews and make them confident in making a purchase decision and

recommend the service to others. Post-purchase behaviour of consumers is still unknown to the literature, and we aim to address it in this study.

There has been a tremendous growth in the restaurant businesses worldwide that is confusing customers which restaurant to visit. New restaurants are opening more frequently than ever, and it is a risky choice for consumers to try food in a newly opened restaurant. If the food quality, atmosphere and service are not good, they would be wasting their money and time. Most of the times, consumers prefer online reviews to know about a restaurant's overall rating, which might help them in deciding. It is still not clear whether these online reviews are helpful for consumers to adopt the online review and enable them to make informed purchase decisions or recommend the services to others. Therefore, this study aims to identify those factors that consumers think are helpful in review adoption that helps in making a suitable and well-informed purchase decision and consumers are willing to give a review to others. Further, this study will compare the results obtained in two different cultural contexts.

## **1.4 Research Questions and Objectives**

### **1.4.1 Research Questions**

This study has one main question that we will answer after analysing the results from two populations. Further, the main research question has three sub-questions to answer the intensity of each determinant and variances between the two groups. The research questions are as follows:

- Which determinants of online review helpfulness influence consumers to adopt online reviews of restaurants, making them more confident about their purchase decision, and they become willing to give reviews to others?
  - How review adoption influences consumers' purchase decision and their willingness to give reviews?
  - What are the main differences between the two groups of the population, Finland and Pakistan?
  - What influence purchase decision has on consumers willingness to give a review to others?

### 1.4.2 Research Objectives

To answer the above research questions, we have set three crucial objectives that will help in achieving the desired results from the data sets. The set of objectives of this research are as follows:

- To identify the determinants of online review helpfulness that provide consumers with useful information to adopt online reviews, which leads to a well-informed consumer purchase decision.
  - To examine the satisfaction of consumers after review adoption that allows them willingly give a review to others.
- To study the differences in online review helpfulness factors contributing to a well-informed purchase decision and consumers' willingness to give reviews in a cross-cultural context.

## 1.5 Importance of the study

This study contributes several additional aspects of online review helpfulness to the literature in terms of consumer review adoption by extending IACM into a cross-cultural context. Erkan and Evans (2016) initially proposed this model. We highlight the following contributing points to the literature:

- The focus of previous studies was on broader meanings such as eWOM and User Generated Content, and this study focuses only on online reviews. EWOM is an umbrella term under which comes text-based reviews (online reviews), highly involved (Discussion forums), computed by automated systems (number of votes or downloads), one-to-one (Emails or instant messaging) (Xia, Huang, Duan, & Whinston, 2009).
- This study examines the post-purchase behaviour of consumers in the review adoption process, which is yet not been studied by previous researchers.
- This study will obtain data from consumers, rather than analyzing online reviews available on different online platforms or interviewing business owners which were the focus of previous studies.
- This study is a cross-cultural analysis.

- The focus of this study is on the perspective of restaurants, which makes this study more interesting as previous studies were more focused on product industries, and some studies based on hotels.
- Results obtained from this study will help restaurant businesses the consumer way of thinking when deciding for a restaurant. These factors will help the restaurant business to understand the consumer perception of an ideal service at a restaurant, and they can provide the best possible services to their customers.

## **1.6 Justifications**

This study aims to find the usefulness of various determinants of online reviews directing consumers towards review adoption leading towards purchase decision and enable them to willingly share their experiences or recommend others by writing online reviews based on their level of satisfaction with the product or service. By utilizing the data gathered from respondents, marketers will understand the behaviour of consumers after reading online reviews. Further, this study will help in understanding the multicultural dynamics of online reviews. Results will show the difference of preferences between two countries, what factors influence consumers in information adoption to assist in decision making.

## **1.7 Research Scope**

IACM, initially proposed by Erkan and Evans, (2016), is adopted in this study to evaluate some additional elements of online reviews and measure the results in a cross-cultural environment. Highlighting the factors that have a more significant impact on consumers in the adoption of information (online reviews) is the primary aim of this study. Online reviews are still gaining their maximum potential, and marketers are interested in understanding the behavioural patterns of consumers after reading online reviews so that they may develop better marketing strategies. Positive online reviews have a significant impact on the sales of hotels and restaurants (Xu & Li, 2016). Therefore, restaurant owners can benefit from the outcomes of this study and develop specific strategies that might help in increasing overall sales.

## **1.8 Research Beneficiaries**

This study is not only focused to help restaurant owners, but the results will help other businesses which have a noticeable effect on sales due to online reviews. Marketers can motivate satisfied consumers to highlight those factors while writing online reviews that help other consumers in decision making. Researchers might also get some help from the insight of this study to compare the results obtained from the underdeveloped country with the results obtained from a developed country. Researchers will know if there is any difference in the behaviour of consumers between the two countries after reading online reviews in order to make a purchase decision. Also, they will know their willingness to recommend the product or service to others.

## **1.9 Research methodology**

This research is based on quantitative methods of data analysis comprising of data gathered from Finland and Pakistan. The population of this research is composed of males and females of all age groups who go to restaurants and read online reviews. Initially, the sample size was around 200 for each country, which later on reduced to 104 for Finland and 141 for Pakistan. Due to the exceptional situation of COVID-19 around the world. This study uses non-probability convenience sampling technique, due to these exceptional conditions, we consider this sampling technique as a simple and easy to obtain required outcomes. This study borrowed a structured questionnaire from a previous study presented by Erkan and Evans, (2016) and the questionnaire was based on multi-item approach. Further, reliability of the data was obtained through SPSS, and hypothesis testing was done based on descriptive, regression, correlation, mediation and comparative analysis.

## **1.10 Structure of the study**

This study is based on a total of five chapters. In the first chapter, we introduced the topic and its importance concerning practice and scientific research. The work of previous researchers and their contributions to the literature are discussed in the following chapter, which is chapter two. Chapter two also tells the description of

research model borrowed from previous research and modified according to the objectives of this research. The third chapter lists the methods of data collection, research design and data analysis techniques. The fourth chapter discusses data analysis, results, interpretations, and discussions. The final chapter is composed of conclusion, managerial implications, limitations, and future area of research.



## 2 LITERATURE REVIEW

### 2.1 Word of mouth

Online reviews have its roots from Word of Mouth (WOM) advertising. WOM is the transfer of information from one person to another in the form of oral communication (Merriam webster). One of the best examples can be storytelling, let it be a truth or something made up. Whereas, in the business point of view, WOM is when a consumer is interested in a product and talks about it in his\her daily discussions. WOM is considered as a form of advertising that occurs without any cost, depending on the customer's perception of the product and usually goes beyond a company's expectations (Kenton, 2018).

In 1966, Dichter (1966) started studying about WOM and came to know about two phases of WOM advertisement, pre-purchase and post-purchase. When a person decides to buy a product, he\she seeks help from others in order to make a well informed and right purchase decision, this is called as a pre-purchase WOM. While in post-purchase, when a customer is satisfied or dissatisfied, he\she began to review that product and inform others about the quality and performance of that product. Customers' dissatisfaction to the services results in negative WOM that can be avoided through timely addressing customers' complaints and dealing with those complaints courteously (Richins, 1983). This way, negative WOM can be converted in to positive.

In terms of psychology, Chen and Yuan, (2020) categorize these two types of WOM as Sender and Receiver of information, further explaining that senders prefer to communicate positive WOM, as they wish to look smart in front of others to represent that they can make wise decisions. Whereas they share negative WOM in reaction to others' bad experiences, and they feel about competing, which then results in sharing negative WOM, Chen and Yuan, (2020) describe it as self-enhancing. On the other side, the receivers of information tend to be influenced by negative WOM than positive.

It is evident that in order to be successful and have a hold over competitors, retailers must encourage word of mouth advertisement and should realize its power (Sweeney, Soutar, & Mazzarol, 2008; Mazzarol, Sweeney, & Soutar, 2007). Smith, Coyle,

Lightfoot and Scott (2007) believe that businesses should highlight positive WOM considering it as an essential business strategy, as it influences purchase decisions of consumers (Ha & Im, 2012). Reichheld (2003) discusses in his study that a positive WOM is capable of enhancing a company's revenue stream. While negative WOM may have adverse effects on the company's sales performance, when a customer is dissatisfied with the performance and quality of a product, he/she may spread the word between eleven people, while a customer communicates a positive experience to only three people (Richins, 1987; TARP, 1986). It indicates that the dissatisfied customer involves in spreading WOM is far more active than a positive one (TARP, 1986).

## **2.2 Electronic Word of Mouth**

Electronic WOM, on the other hand, person to person communication using electronic mediums available on the internet, such as Facebook, Instagram, Yelp.com. (Kremers, 2017). Online sharing of comments/reviews is called as eWOM, unlike conventional in which people share their views depending upon oral/interpersonal communication with the people they know (Cheung & Thadani, 2010). In this era, filled with technology, the internet has made it possible for users to share their product experiences and opinions regarding products through eWOM.

Moreover, eWOM is the reason behind people's changing behaviours because of rapid growth on the internet (Yayli & Bayram, 2012). Dellarocas, Zhang, and Awad (2007) further elaborate that eWOM is an internet-dependent form of communication between peers to share reviews and comments regarding different products and services). It helps consumers making choices about products when there are a lot of options and information available, and they are confused about making a right decision (Xie, Miao, Kuo, & Lee, 2011).

The Internet has broadened the options for consumers to look for product-related information, and in return, they also provide their own experiences with products via eWOM (Hennig-Thurau et al., 2004). Media and business giants used to influence the purchase decisions of consumers (Yayli & Bayram, 2012), which is no longer the case due to the millions of users sharing their experiences on the internet via eWOM and influencing others' decisions (Duan et al., 2008). EWOM have proved beneficial for consumers in enhancing their attitude towards products and services, providing useful

information and making well-informed purchase decisions (Cheung & Thadani, 2010; Doh & Hwang, 2009). According to Dimensional Research (2013), about 90% of the respondents were directly influenced by eWOM in making a purchase decision.

In traditional WOM, the reviewer is likely to be a known friend or family member, while in eWOM because of enormous availability of reviews and comments customers must trust the reviewer first before believing on what he\she writes or says online (Xu, 2014). Relationship between customer and reviewer should be a long-term relationship, so that customer should be able to trust the reviewer (Keller, 2007). If the reviewer is unknown, the credibility and trustworthiness will be difficult for the customer to access (Xu, 2014). Consumers may find clues in the profile of the reviewer in order to ensure the trustworthiness (Park, Xiang, Joisam, & Kim, 2013). These clues can be a profile picture or reputation of the reviewer among other reviewers (Xu, 2014). Even though social relationships are essential for consumers to make purchase decisions (Brown & Reingen, 1987; Granovetter, 1983), studies on the eWOM social influences are scarce (Kim, Kandampully, & Bilgihan, 2018).

Mostly, eWOM is circulated over the internet anonymously; it leaves consumers ambiguous about the reliability of it. Consumers are always doubtful to trust that eWOM from anonymous sources. It is a common practice of many businesses to generate fake eWOM favouring their business and circulate negative eWOM for their competition. Moreover, it was surveyed by the Social Shopping Study that 57% of consumers trust the credibility of eWOM, whereas, according to Brown et al., (2007) 35% believe that actual consumers do not create eWOM. Value and the widespread use of eWOM is utilized by marketers creating fake reviews for their own benefit, which is even illegal and unethical. These fake reviews compromise the credibility of it and make it extremely difficult for consumers to identify which of it is authentic. (Kim, Kandampully, & Bilgihan, 2018).

### **2.3 Online reviews**

Not very long ago, different websites such as amazon.com and ebay.com initiated online review systems for products and services they offer to their customers. Such platforms help users get product-related information without any cost and give their suggestions to other uses (Fan, Li, & Liu, 2020). Online product reviews are positive

or negative statements written on the internet considered as one type of eWOM, which reveal consumers' personal experiences with the products and services (Park and Lee, 2008). Consumers trust online review more than advertisements by marketers. According to market research conducted in 2018, when customers choose a restaurant, 65% of them look for online reviews, and 78% customers trust online reviews as much as they trust the advice from their family and friends (Brightlocal, 2018).

Consumers read online reviews to understand and evaluate different features of products; though every consumer has different preferences for each feature of each product. Consumer preferences need to be considered when doing feature extraction of a product through online reviews. Product feature extraction has become a problem due to a large number of online reviews available to users, and they become confused with false information (Fan, Li, & Liu, 2020). Consumers are becoming less efficient in obtaining product characteristics that can result in information overload and to avoid this problem, several social analysis instruments have been created to assist consumers in extricating product features from online reviews automatically (Fan, Li, & Liu, 2020).

According to a consumer market survey, there has been an increase in consumers reading online reviews from 71% to 91% between 2010 & 2016. However, with the surge in online review readers, there has been a tremendous increase in the number of online reviews that are available on the internet. Though, due to the enormous amount of reviews on each product available online, it has become challenging for consumers to examine a considerable amount of reviews in a limited time to get useful information (Fan, Li, & Liu, 2020). Thus, it becomes challenging for consumers to rank alternative products or services.

Fan, Li, and Liu (2020) explain that according to current research results, information fusion approach is widely being used to rank products and services based on online customer reviews. This process has three phases. 1) Product characteristics are identified through data mining technique. 2) Sentiment analysis is used to evaluate the strength of online review and alignment of sentiments concerning the attributes of a product or a service. 3) By joining the sentiment analysis result of online reviews, product ranking can be decided. Further, Information fusing process is a process that can join information from different sources to make it a single logical representation.

Fan, Li, and Liu (2020) describe information fusion approach as a multi-level and multi-faceted process. At first, this approach was used in the military field, but with the advent of technology, it is widely used in numerous other fields.

Mostly users read the comment that comes first on web pages, rather than reading all the comments. Order of the online reviews is essential; informative and positive reviews should be on the top. Bigne, Chatzipanagiotou, and Ruiz (2020) discover that first comment in the online review section grabbed more attention and users spent more time in reading the first text. Moreover, researchers observed that graphic content in the review grabbed significant attention of readers.

The usefulness of online reviews comes from the truthfulness of reviewers. Managers and organizations should motivate reviewers to write realistic and informative reviews that can help others choose the best possible products and services (Bigne, Chatzipanagiotou, & Ruiz, 2020). Further, Bigne, Chatzipanagiotou, and Ruiz (2020) suggest that restaurant owners provide guidelines for posting helpful reviews and should arrange incentives for reviewers in order to motivate them. Managers should also try to motivate consumers to mention the positive and negative aspects of products and services of restaurants, simultaneously avoiding extreme and biased comments (Bigne, Chatzipanagiotou, & Ruiz, 2020).

Consumers do not need to write online reviews about products and services only to help prospects, but these reviews are of great importance to global organizations. Organization try to understand consumer perceptions and how it changes across cultures (Barbro, Mudambi, & Schuff, 2020). Worldwide brand standing is crucial to success (Chabowski, Samiee, & Hult 2013); online reviews can rapidly harm or improve the reputation of a brand. Companies frequently evaluate the length and quality of online reviews to understand the differences in language, culture, behaviour and attitudes of consumers that may complicate comparison between online reviews (Barbro, Mudambi, & Schuff, 2020). Although the number of online reviews is large globally, there is a need to carry out academic research on the cross-cultural context of online reviews (King, Racherla, & Bush 2014). Barbro, Mudambi, and Schuff (2020) found that cultural difference has a vital role in the perceptions of consumers regarding online reviews. Further Barbro, Mudambi, and Schuff (2020) discuss the favorability of positive reviews among customers from the United Kingdom, whereas,

customers in the United States feel that negative reviews are more helpful than positive. This study suggests that global organizations should act according to the cultural contexts in terms of online consumers reviews.

Barbro, Mudambi, and Schuff (2020) analysis suggests that factors affecting review helpfulness might not be useful in different cultures, countries and languages. According to Barbro, Mudambi, and Schuff, (2020) definition of review helpfulness among Japanese customers is different from customers in the United Kingdom, the United States, Germany and France. Different factors repeatedly used in various research such as length, valence and helpfulness of reviews cannot be generalized across different cultures. Thus, language, countries, and consumer reviewing behaviour should also be considered and analyzed in researches.

## **2.4 Online reviews and Hospitality industry**

Online product review is a positive or negative statement valuable for people to make a purchase decision, which is made on the internet by potential, current or former consumer regarding product/service/company (Hennig-Thurau, Walsh, & Walsh, 2003; Nieto-García et al., 2017, p.68). Online product review is the type of eWOM that help users to find precise and useful information regarding a product or a service that makes it very important information source (Chung & Koo, 2015; Mudambi & Schuff, 2010). According to Nielsen (2015), majority of users rely on online reviews considering it a most reliable source of information, which makes it vital in the consumer decision-making process (Chevalier & Mayzlin, 2006; Duan et al., 2008).

The research on online reviews related to restaurants is scarce (Kim, Rahman, & Bernard, 2020), and online reviews play a vital role in consumer decision making when it comes to restaurants (Chevalier & Mayzlin, 2006; Duan et al., 2008). Particularly in the service industry, consumers mainly rely on the reviews given by users to make a purchase decision (Ghose & Ipeirotis, 2011; Korfiatis et al., 2012). The recent surge in social media enable consumers to share their experiences with products and services has made online reviews valuable for the hospitality industry (Bigne, Chatzipanagiotou, & Ruiz, 2020). In the service sector, online reviews drive brand choice (Bigne, Ruiz, & Curras, 2019). Before experiencing, a customer cannot judge value and cost of a service in the hospitality industry; thus, online reviews help

consumers decide and choose a most suitable option by removing ambiguities customers might have (Fang et al., 2016, Liu et al., 2019).

In the hospitality and tourism industry, online reviews play a very crucial role. It is a widespread practice of consumers to evaluate the services of tourism and hospitality industry by relying mostly on online reviews before consumption (Ghose & Ipeirotis, 2011; Korfiatis et al., 2012), as services and products related to this industry are intangible and complex. In the context of restaurants, consumers look for online review websites and reviews on social media in addition to the recommendations given by their friends and family members (Pantelidis, 2010). Quality of food, restaurant atmosphere and service are the factors identified by Zhang et al. (2010) that contribute to the online reputation of restaurants. According to Oliveira and Casais (2019), consumers look for pictures of food and other related tangible proofs of restaurant posted by other users on the internet. Above all, consumers give more importance to the quality of information given in the review, followed by customer ratings and overall rankings by customers (Filieri, 2015). Whereas, Balouchi (2017) found source credibility as the most influential predictor in terms of online reviews.

According to Bigne, Chatzipanagiotou, and Ruiz, (2020) graphic content is relatively more important than other factors while choosing for a restaurant, as experiences in the hospitality industry are intangible and cannot be experienced in advance; therefore, pictures shared by consumers are considered as a vital factor for prospects. Previous researchers have found that photographs are the drivers of consumer purchase decision (Underwood & Klein, 2002; Li, Huang, & Christianson, 2016). The most noticeable factor about graphic content is to first grab the attention of viewers before influencing their perception and response to it. Recently, researchers have considered understanding the visual attention of consumers, especially when they are exposed to a large amount of content or contradictory information (Wang & Sparks, 2016). These studies show that photographs used in advertisements influence the positive attitude of consumers than textual content. Consumers tend to remember graphic content more than any other content in advertisements. In a study conducted by Hernandez-Mendez and Munoz-Leiva, (2015) tourists were shown banners took more time to notice the text in those banners than visual content.

This era is considered as an e-Tourism era, in which consumers make their booking online and leave feedback after their stay. These reviews are not only beneficial for prospects, but hospitality companies such as restaurants and hotels evaluate to enhance customer experiences and boost sales (Xu & Li, 2016). Feedbacks from customers on online platforms are the reflection of their perception toward the product and service attributes that can help business managers to improve (Xu, 2020). By knowing the expectations of consumers from products and service before consumption and evaluating the perceived performance can help in discovering customer satisfaction and dissatisfaction causes (Oliver, 1980). Previous researchers believed that the characteristics of products and services described by consumers positively result in customer satisfaction while negative reviews lead to dissatisfaction (Berezina et al., 2016; Xiang et al., 2015; Xu & Li, 2016). Though, all factors described in online reviews lead to overall customer satisfaction (Xiang et al., 2015; Xu, 2018). Whereas, users' motivation to publish online reviews does not lie only in showing their satisfaction with products or services (Xu, 2020). According to Bronner and De Hoog (2011), users write online reviews for mutual benefit and wellbeing of others. Additionally, customer emotion and demographics influence the writing style and content of reviews (Ullah, Amblee, Kim, & Lee, 2016).

## **2.5 Information Acceptance Model (IACM)**

Consumers are allowed sharing their ideas and opinions about products and services on social media and other internet-based platforms (Chu & Kim, 2011; Kozinets, de Valck, Wojnicki, & Wilner, 2010). Social media has somehow reduced the anonymity of users, which makes online review and opinions more authentic and trustworthy (Chu & Choi, 2011; Wallace, Walker, Lopez, & Jones, 2009). Most of the conversations on the internet are about brands (Wolny & Mueller, 2013), that has a noticeable impact on consumer purchase intentions (Wang, Yu, & Wei, 2012). Thus, it is not necessary that every bit of information on social media in the shape of online reviews lead to the consumer purchase decision. Consumers are burdened with a tremendous amount of information, through which they need to pick authentic information before using it and filter out the false information (Erkan & Evans, 2016).

This study is an extension to the model used by Erkan and Evans (2016) that was initially based on IAM, and some factors were picked from (TRA). IAM consists of



eWOM factors, whereas TRA reflects the factors of consumer behaviour. Erkan and Evans (2016) named their model as Information Acceptance Model (IACM). Their model explains the impact of eWOM quality, credibility, information need, attitude towards information, usefulness and adoption on the purchase intention of consumers.

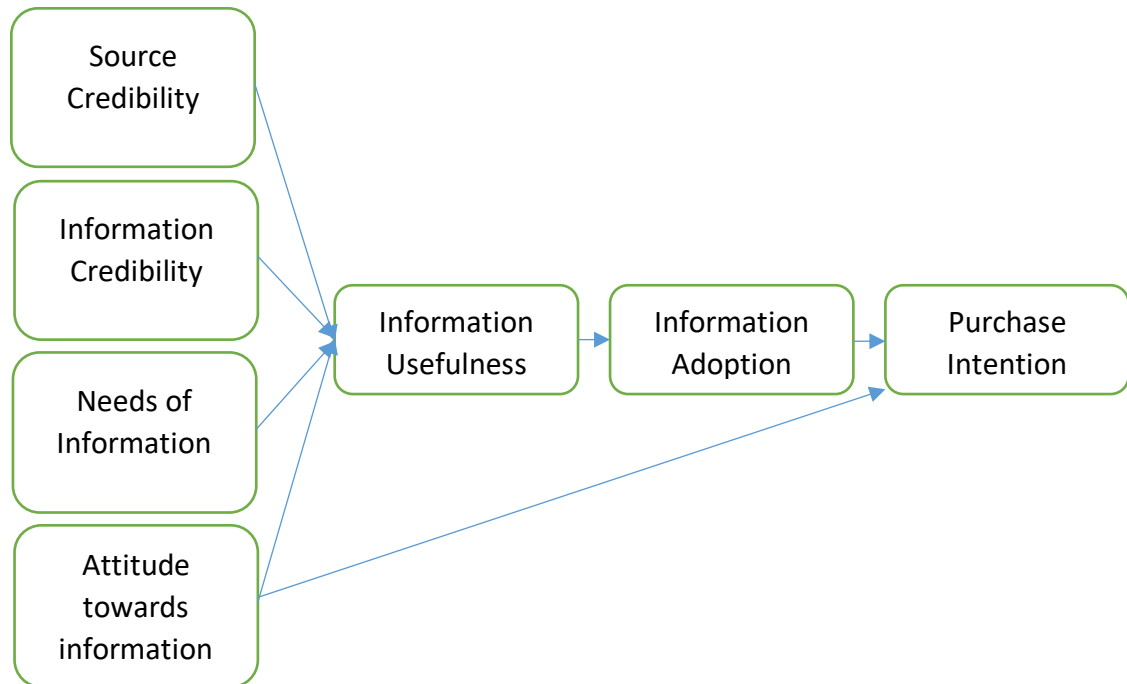
We know eWOM as a primary transfer of information between sender and receiver (Bansal & Voyer, 2000). Though the intensity of the impact of information differs from person to person, the same information can arouse different opinions among users (Chaiken & Eagly, 1976; Cheung, Lee, & Rabjohn, 2008). Researchers have been using IAM in order to understand the patterns of users in information absorption (Nonaka, 1994). The formation of the IAM model is based on how people are affected by the information available on internet-based online platforms. IAM consists of four factors, argument quality, source credibility, information usefulness and information adoption. IAM is suitable for eWOM, as it gives an explanation about the information on online internet-based platforms (Cheung et al., 2008; Cheung, Luo, Sia, & Chen, 2009; Shu & Scott, 2014). Cheung et al. (2008) used this model in their research to study online discussion forums; likewise, it was applied by Shu and Scott (2014) in a social media setting. Therefore, IACM was proposed by Erkan and Evans, (2016) adding behavioural factors as a part of their model to introduce an extended approach to IAM. The behavioural factors of their model were extracted from TRA. Fig. 1 shows IAM.



**Figure 1. Information Adoption Model. Adapted from Sussman and Siegal (2003)**

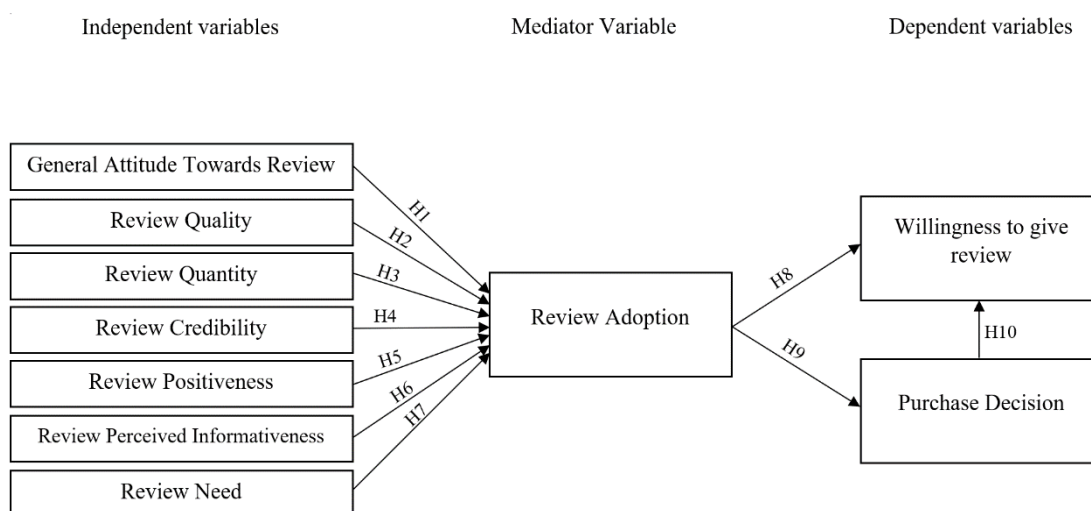
Attitude and subjective norms are the underlying determinants in TRA, which describes the behavioural intentions of a person (Zhang, Cheung, & Lee, 2014). Previously, TRA has been frequently used by researchers to identify the relationship between eWOM and consumers' purchase intention (Cheung & Thadani, 2012; Prendergast, Ko, & Yuen, 2010; Reichelt, Sievert, & Jacob, 2014). Consequently, the IACM model by Erkan and Evans (2016) borrowed two factors from TRA, attitude,

and behavioural intention, that will also be used in this study. The behavioural intention has been modified to purchase decision to fulfil the objectives of this study. Erkan and Evans (2016) avoid the use of subjective norms as those are criticized by some researchers (Miller, 2002). The judgement by other people over the decision take by a person is considered as the subjective norm (Erkan & Evans, 2016). In addition to that, the IACM used needs of information as another construct to get help in the study. Fig. 2 shows IACM.



**Figure 2. Information Acceptance Model. Adapted from Erkan and Evans (2016)**

Moreover, the proposed model of this study implies review perceived informativeness (Zhang et al., 2014), review quantity and review positiveness (Park et al., 2007) additional to obtain meaningful results. This study asserts that only a few characteristics of eWOM are not enough to evaluate the impact of online review factors on review adoption, ultimately leading towards consumer purchase decision and their willingness to give a review. Further, in addition to purchase decision as a behavioural characteristic borrowed from TRA, this study obtained consumers' willingness to give a review (Chu & Kim, 2011) as another characteristic of behavioural intention. The model used in this study is applied to online reviews, which comes under the umbrella terms eWOM. This study extends the research by applying the proposed model in a cross-cultural context. The proposed model of this study is shown in Fig. 3.



**Figure 3. Proposed model**

## 2.6 Summary of the previous findings

Ismagilova et al. (2020) integrate the findings from twenty research articles amongst existing literature. They studied different determinants of source credibility in eWOM by fitting these determinants into a single model in order to do a meta-analysis. In their study, reviewer expertise found to be the most highlighted determinant among others, whereas, the lowest effecting determinant was found to be homophily. Further, Ismagilova et al. (2020) determine a positively significant relationship between the usefulness of information and reviewer expertise. Consumers found information more reliable based on the expertise of review source. A study conducted concerning accommodation and restaurants by Filieri et al. (2018) found that the expertise of source significantly influences information usefulness. Moreover, Ismagilova et al. (2020) discuss that consumers' adoption of information which is significantly influenced by the trustworthiness of the source.

Zhang et al. (2014) study on examining the influence of online review on consumers' decision making plays a pivotal role in providing an insight to the factors describing the impact of online reviews on individuals. Specifically, the factors that influence the consumers and whether there is a bias effect amongst these factors were the main objective of their study. According to Zhang et al. (2014), consumer decisions are subjected to systematic and heuristic factors. While informative and persuasive reviews can help the consumers to adhere to effective purchasing and enhance their decision making. On the other hand, the number of reviews and the ranking level

comprising the heuristic factor can increase their tendency to purchase. The results of the study provide substantial evidence explaining the effects of source credibility and perceived quantity of reviews on argument quality in online environments. The interconnection between these systematic and heuristic factors is revealed by studying the bias-effect, i.e. If the reviews received by the consumers are from a credible source and are found to be in greater quantity, then they will perceive arguments in online reviews to be informative and persuasive (Zhang et al., 2014).

Huang et al. (2015) discuss the helpfulness of user reviews by analysing the ranking system of Amazon.com. Their research studied the collective effects of review patterns and review attributes accompanied by the length of information on review helpfulness. Huang et al. (2015) identify that the length of review is useful until it reaches a threshold of a certain number of words. Their research is only acceptable when the total number of words in a review is 144. The association between the review helpfulness and the length of the message remained significant only when the word count was 144 or less. This association between word count and review helpfulness went insignificant when the length of review exceeded the threshold of 144 words. Interestingly, this is not the case for top reviewers; the length of the review has no relationship with the review helpfulness. Among top reviewers, cumulative helpfulness of review accompanied by product rating have a significant relationship with review helpfulness (Huang et al., 2015).

The table below represents the summary of the key findings in the area studied by previous authors. Most of the previous studies are based on certain websites and platforms of online reviews, and they address the studies by examining the online reviews itself. Previously, authors focused on a few determinants of online reviews that might be helpful to consumers while adopting the information they get from them. Below listed gaps established the basis of this study, and we borrowed the model from Erkan and Evans (2016) and incorporated several other determinants of online review helpfulness discussed by other researchers. Further, this study extended IACM by including one additional behavioural aspect, which is consumers' willingness to recommend the service to others. Summary of the previous findings is listed in table 1 below:

**Table 1. Summary of the previous findings**

Authors (year)	Contribution to the literature	Literature gap
Huang et al. (2015)	This study examined the helpfulness of reviews by analyzing online reviews available on Amazon.com, found that considerable information quantity is a significant predictor of review helpfulness. Further, cumulative reviewer helpfulness found to be significantly correlated with the helpfulness of reviews.	This study was done by analyzing online reviews from a website. This study does not enquire customers directly about what factors in online reviews lead to purchase decision and willingness to give a review.
Zhang et al. (2014)	Quality, credibility, and quantity of online reviews are essential elements in consumers behavioural intention. Consumers examine the content to know whether reviews are informative and persuasive. Informative reviews support purchase decisions.	Dependent only on the users of a single online platform (dianping.com). It could be done in multiple cultural contexts.
Fan et al. (2020)	Proposed information fusion approach, which will support consumer purchase decision by ranking products based on online reviews and make it easy for consumers to analyze product features that best satisfy their need. This approach is composed of three steps: product feature extraction, sentiment analysis, and ranking products.	It does not address false and untrue information. The study is based purely on text-based reviews.
Erkan and Evans (2016)	The study is based on Information Acceptance Model (IACM). Consumer purchase intention on social media is influenced by attributes of eWOM information and attitude of consumers towards eWOM information. IACM is the combination of Information Adoption model and two attributes of the Theory of Reasoned Action.	Variety of other variables can be used to extend the Information Adoption Model to identify the impact on consumers' willingness to give a review in addition to purchase decision. This study generalizes the results by taking university students only.
Ismagilova et al. (2020)	The credibility of the source has a significant impact on information usefulness, consequently, impacting consumer behaviour. Source trustworthiness leads to information adoption positively and significantly. Higher expertise of source	The credibility of the source cannot be considered only variable affecting consumer behaviour. Information being delivered also plays an

	leads to a high probability of information adoption.	important role, other factors can also be studied
Kim, Rahman, and Bernard (2020)	Intrinsic and extrinsic cues of hyper-local restaurants were examined. This study found that among other intrinsic cues, overall quality and taste were highly preferred by consumers. Whereas, price, menu and region of restaurants were found to be essential criteria for consumers among extrinsic cues. The pattern of reviews on hyper-local restaurants was found to be different in UK vs the US	It depends on the online reviews regarding the offering of restaurants, intrinsic and extrinsic cues of only hyper-local restaurants. It does not examine the effect of online reviews on consumer behaviour.
Racherla and Friske (2012)	This study highly supports the reputation and expertise of reviewer as contributing factors in review helpfulness. Reviews given by experts found to be more useful for readers. Reviewers reputation is vital for readers in order to consider a review helpful.	This study neglects whether consumers go for a purchase decision or their willingness to give a review
Kim, Kandampully, and Bilgihan, (2018)	Review websites have a thorough understanding of the electronic word of mouth processes while conceptualizing online social network framework and developing consumer-website relationships. By analyzing social relationship factors, consumer purchase decision through online review websites can be understood. Depending on the strength of the consumer-website relationship, consumers try to evaluate the credibility of online reviews, even if the source is anonymous.	This study does not address several other moderators of eWOM communication. This study neglected situational and consumer factors.

## 2.7 Determinants of online review helpfulness and their definitions

Table 2, illustrated below, briefly explains the short definitions of all variables mentioned in the proposed model:

**Table 2. Variables and their definitions**

Variable	Definition
Review Quality	A high-quality online review can be defined as logical, detailed, and persuasive that explains the reasons based on the facts about a product or service in order to support its assessment (Park, Lee, & Han, 2007).
Review Perceived Informativeness	Informativeness is defined as the persuasiveness of information (Review) that leads consumers towards purchase decision (Bhattacharjee & Sanford, 2006).
Review Quantity	Review quantity is defined by the popularity of a product, which empower consumers to write a high number of online reviews (Zhang et al., 2014). Quantity is also determined by the length of the online reviews, which provides enough information for consumers to decide.
Review Positiveness	Review positiveness is the recommendation by consumers/users when they are satisfied with the product and write something in favour of a product of the company (Park & Lee, 2008).
Review Credibility	Online review credibility is defined as the degree to which a person agrees that a statement is trustworthy, promising and based on the facts (Cheung et al., 2009). Review credibility is the credibility or trustworthiness of the text of the review itself.
Review Need	Review need is defined as the requirement of internet users to seek help from people who are experienced and knowledgeable, or they have experienced the product themselves (Chu & Kim, 2011).
Review Adoption	It is the process of accepting the information written in online reviews, which might lead consumers to purchase decision or their willingness to recommend others.
Willingness to Give Review	Consumers' willingness to give a review and recommend others depends on their satisfaction, the more they are satisfied with the review and consider it as valid and authentic the more they want to recommend to others (Schlesinger & Heskett, 1991).
Purchase Decision	Purchase decision requires actual financial spending on a product or service, where consumers justify their spending based on various reasons (Brocas & Carrillo, 2003)

## 2.8 The General Attitude of Consumers Towards Online Reviews

Consumers' preference to read online review has various reason and their motivation to seek online review modifies the impact of it. Consumers want to learn about products, how to use them before purchasing. Whereas, users who join online platforms for entertainment purposes only may not change their purchase decision based on online reviews (Hennig-Thurau et al., 2003; Khammash & Griffiths, 2011).

Generally, the original motivation of consumers behind reading the online review is to acquire information about the product or service before purchasing that influence consumer behaviour (Hennig-Thurau et al., 2003). Most of the consumers read online review to steer their decision-making process (Murphy, 2018; Podium, 2017; Smith & Anderson, 2016).

In the process of seeking online reviews, the level of motivation among consumers differs because of different factors of online reviews (Moore & Lafreniere, 2020). Consumers pay attention to the popularity of the product when their motivation in reading online reviews to acquire information is low. However, their motivation is high when they enquire about the product features and give more attention to the text of online reviews to acquire complete information about the product (e. g., Doh & Hwang, 2009; Lee, Park, & Han, 2008; Martin & Lueg, 2013; Park & Lee, 2008; Wu, Che, Chan, & Lu, 2015). Hence, different factors of online reviews affect sales of a firm (Babić Rosario et al., 2016; Chevalier & Mayzlin, 2006; Forman, Ghose, & Wiesenfeld, 2008), according to their effect on consumer behaviour (Moore & Lafreniere, 2020).

## 2.9 Online Review Quality

The content of an online review can be short or long, subjective or objective, as there are not any formal guidelines on how a quality online review should be (Chatterjee, 2001). A high-quality online review can be defined as logical, detailed, and persuasive that explains the reasons based on the facts about a product or service to support its assessment (Park, Lee, & Han, 2007). Further Park, Lee, and Han (2007) found that the more detailed and extensive information in review has more customer satisfaction. This study expects to find whether customer satisfaction due to review information quality affects the purchase decision of consumers and their willingness to give a review. In addition to analyzing the quality of message content, this study also focuses on understandability and clearness of online messages. If they are understandable and clear, are those useful?

Information is being communicated by every user on the internet today, which has made information quality an essential element in terms of online reviews (Xu, 2014). Consumers interest in product and services amplifies when the information they get



satisfies their demands (Olshavsky, 1985). Previously, researchers have analyzed that the quality of online reviews positively affects consumer purchase intentions (Lee & Shin, 2014; Park et al., 2007). Therefore, this study predicts that the quality of online reviews on different online platforms have an impact on consumer purchase decision in a cross-cultural context and the willingness of readers to write a review.

## **2.10 Online Review Perceived Informativeness**

Online review perceived informativeness refers to the overall perceptions of consumers on the characteristics of the quality of information that an online review consists (Ducoffe, 1996). According to Bhattacharjee and Sanford (2006), consumers tend to incorporate new technologies in their lives if the information is persuasive. In terms of online review, if the information is persuasive and consists of high argument quality (informative), then we expect that consumer will purchase the product and most likely willing to give a review. Generally, consumers' perceptions of online review informativeness are based on the content of information, and consumers examine the content of reviews to judge its informativeness (Zhang et al., 2014). Zhang et al. (2014) further suggest that, in practice, reviewers should give attention to the informativeness of reviews as a part of being careful to the overall content of online reviews, as lack of information will create doubt in consumers' mind regarding the purchase of products. Consequently, in order to be efficient, consumers should be given the right to report an online review that is not informative and persuasive enough.

## **2.11 Online Review Quantity**

Among other elements that affect consumer purchase decision, previous researchers have found that quantity of review also has an impact on consumer purchase decision, it is a useful element that helps consumers in making quick and well-informed decisions (Park & Lee, 2008; Park, Lee, & Han, 2007; Sher & Lee, 2009). However, little research is done on the perspective of directly asking from consumers or their willingness to give a review. Therefore, this study examines the consumer perspective in order to understand the impact of online review quantity on consumer purchase

decision and their willingness to give an online review in a cross-cultural context. Unlike traditional WOM, where consumers have few suggestions and recommendation, online reviews are extensive in number, which is a unique characteristic (Chatterjee, 2001; Dellarocas, 2003). According to Zhang et al., (2014) perceived quantity of reviews is the perception of consumers about the number of online reviews available for a product or service, and the popularity of that product or service depending on that large number of reviews.

Furthermore, other than a large number of reviews, quantity includes the length of online reviews. Chaiken and Trope (1999) explain that the length of reviews demonstrates its strength and consensus that opinion is correct and is enough to make decision judgement. High review quantity can make consumers confident in decision making about the product or service by following other consumers purchase decisions. There is a significant impact on marketing activities due to the number of online reviews (Chevalier & Mayzlin, 2006; Duan et al., 2008). Thus, it is expected that the perceived quantity of reviews is a possible characteristic for consumers that can help them make a purchase decision. Consumers' decision making is affected by the perceived popularity of products and services online (Park et al., 2007).

## **2.12 Online Review Positiveness**

Review positiveness refers to the extent of positiveness of the statement that is written by reviewers regarding the quality of product or service (Park & Lee, 2008). Eslami and Ghasemaghaei (2018) describe review positiveness as a combination of different elements in reviews, i. e., review score, review sentiment, and review title sentiment. Further, their study suggests, if review consists of positive review sentiment, positive review title sentiment and high review score, the review could be believed as positive. According to Spark and Browning (2011), consumer behaviour is profoundly affected by the online consumer reviews that are positively written. There has been a considerable increase in online hotel bookings as a result of positive online consumer reviews (Ye et al., 2009). Therefore, this study predicts that the positiveness of reviews also has a high impact on consumer purchase decision and their willingness to suggest others via online platforms.

Consumers preferences in reading online reviews may be different in high involvement products compared to when they read reviews about low involvement products. Consumers evaluate the quality of products in detail while deciding for high involvement products, whereas, their decision making is rather spontaneous than planned in terms of low involvement products (Stephen & Galak, 2012). For example, consumers might focus of review sentiment while decision making for high involvement product, whereas, they may put more attention to reviewing title sentiment for low involvement product (Eslami, & Ghasemaghaei, 2018). Further, Eslami and Ghasemaghaei (2018) found that online consumer review positiveness has an impact on product sales concerning both high involvement and low involvement products.

### **2.13 Online review credibility**

The credibility of online reviews is referred to how much these recommendations can be trusted and believed by the reader (Fogg et al., 2002; Nabi, & Hendriks, 2003; Tseng, & Fogg, 1999). In this study, the credibility of online review is considered as the truthfulness of reviews itself rather than focusing on any person or firm. Influence and persuasiveness of online communication of message on consumers can be affected by characteristics of information source (Ismagilova et al., 2020). Further, Ismagilova et al. (2020) argue that the credibility of the source depends on when consumer trusts the information obtained from it. Physical appearance, the power to communicate, attractiveness and familiarity of reviewer are vital elements of the source of information that have an impact on the credibility of the message (Hovland & Weiss, 1951). The conveyor of positive information is more persuasive than those with less positive characteristics (Eagly & Chaiken, 1993). Whereas, in virtual discussions communicated through textual messages, physical appearance and attractiveness of the reviewer are not known to the readers because online discussions limit communicators to convey such indications (Cheung, Luo, Sia, & Chen, 2009). The most important characteristic about the reviewer is his/her reputation of credibility, which is assigned by other users on the internet. Most of the sites have a reputation system which conveys the credibility information of communicators that help consumers in trusting the communicators. Consumers believe the information coming from highly credible

sources and make a decision based on that information, while, they are most unlikely to accept the information when the source is not credible (Grewal, Gotlieb, & Marmorstein, 1994). Information credibility hugely depends on the credibility of its source in the virtual world (Wathen & Burkell, 2002).

The foremost initial step within the message influence process is that the readers' opinion on the credibility of the online message (Wathen, & Burkell, 2002), which explains how a reader is influenced by a message and able to learn from and adopts it while making a decision. This process of persuasion is also applicable to online reviews and reviewer recommendations (Sussman & Siegal, 2003). According to Nabi and Hendriks, (2003) when a consumer thinks that a review is credible and can be trusted, he/she will be more confident in adopting the recommendation and will decide based on that. There has been enough research conducted on the relationship between data credibility and its adoption (Cheung, Luo, Sia, & Chen, 2009), such as a study by McKnight and Kacmar, (2006). McKnight and Kacmar (2006) found in their study that a positive attitude of consumer toward the message's credibility leads to the adoption of information. A reader of online reviews is expected to learn and use it after having believed that the information is real and credible (Cheung, Luo, Sia, & Chen, 2009). On the other hand, if a reader believes that information in online review is false and not credible than it is doubtful that reader will follow the recommendation and will try to avoid the potential risk (Cheung, Luo, Sia, & Chen, 2009).

#### **2.14 Online Review Need**

According to Chu and Kim, (2011) consumers seek help from others who are knowledgeable and experienced when they are subject to informational influence during their search for different purchase options to facilitate themselves in online review discussions. Further, their study briefs that before considering the product as acceptable to purchase, consumers when choosing a product require approval from other consumers who already have experienced it. Thus, they need an opinion from online reviews. Chu and Kim (2011) study represents the hold of online reviews on consumers when they think of them as an essential source of information.

### 2.15 Online Review Adoption

Online reviews comprise of essential information transfer between people in the form of sender and receiver of information (Bansal & Voyer, 2000). Influence on online reviews can be different for every person; the same content can control different emotions among receivers of information (Chaiken & Eagly, 1976; Cheung, Lee, & Rabjohn, 2008). In order to understand the process of incorporation information among receivers, earlier researchers adopted information adoption process (Nonaka, 1994). Internet users are exposed to numerous amounts of online reviews either purposefully or accidentally, and previous studies have noted that online reviews influence consumers purchase intention (See-To & Ho, 2014; Wang et al., 2012). The intensity on impact can vary, as not all reviews posted online have the same effect on purchase intention of consumers (Yang, 2012). Erkan and Evans (2016) found that consumers that adopt the content of online reviews are more likely to have purchase intention.

### 2.16 Willingness to Give Review

Consumers' willingness to give reviews and recommend products to others is dependent on their level of satisfaction (Bitner, 1990), either with reviews or product itself. Willingness to recommend is considered as a measuring instrument (Chu & Kim, 2011), which identifies the level of satisfaction of consumers and its practical impact. There is a significant positive relationship between consumer satisfaction and willingness to recommend found by Schlesinger and Heskett (1991). This study assumes that if consumers are much satisfied with online reviews and influenced by the communicated information are more willing to write and give online reviews to others. Moreover, altruism (the passion of helping others), instrumentalism (describing themselves as smart), ego defence and reduction of cognitive dissonance could also be the reasons behind giving reviews/recommendations for potential consumers (Dichter, 1966; Arndt, 1967).

On the contrary, dissatisfied consumers prefer to engage in negative discussions twice as much as satisfied consumers (TARP, 1986). Dissatisfaction has a more significant impact in sharing the information than satisfaction (Richins, 1983).

## 2.17 Purchase Decision

Consumers purchase decision process has several steps before going for final purchase decision (Engel et al., 1968; Kotler, 2003). “Evaluation” is a step in the consumer decision process, where consumer evaluates different sets of alternatives based on several product features and analyze which product satisfies his/her needs (Gupta & Harris, 2010), and the purchase is the last step where the process ends (Kotler, 2003). This study assumes that the evaluation phase occurs when consumers look for product information and refer to online reviews for a detailed description and performance of the product before buying it.

Purchase decision requires intense dedication and intellectual engagement in decision making, whereas, consumers commitment is low in initial product selection in terms of online shopping (Wolfenbarger and Gilly, 2010). Purchase decision requires an actual financial investment on a product or service, where consumers justify their spending based on various reasons (Brocas and Carrillo, 2003; Griffin and Tversky, 1992). In this decision-making process, information plays a vital role of giving the consumer a reason to buy a product, where the consumer is sure about his/her purchase decision by eliminating perceived online shopping risks based on that information (Forsythe et al., 2006). If the communicated information is reliable for the customer to believe in, the consumer decision to purchase will likely be enhanced (Kang, Shin, & Ponto, 2020).

Moreover, Kang, Shin, and Ponto (2020) explain that product-related information does not necessarily lead to enjoyment and excitement, but it is directly connected to the elimination of perceived risk of online shopping. The final purchase is the result of the cognitive thinking of consumers that reduces the risk of any possible monetary damage (Kang, Shin, & Ponto, 2020).

This study examines the impact of various elements in online restaurant reviews on consumer purchase decision by analyzing the information attributes that help consumers choose a restaurant. Consumers become confused about choosing restaurants that can satisfy their hunger need which encourage them to read online reviews. Further, this study aims to find whether to purchase decision patterns in terms of online reviews are the same in the cross-cultural context.

### 3 METHODOLOGY

#### 3.1 Research design

The model chosen for this research is borrowed from Erkan and Evans (2016), and it has been duly modified to meet the desired outcomes of this study. Erkan and Evans (2016) named this model as Information Acceptance Model. We extended this borrowed model by adding determinants of review helpfulness and one additional element of post-purchase behaviour. This model was tested in a cross-cultural context by performing a multigroup analysis and comparing results obtained from Finland and Pakistan.

In order to test multigroup data analysis, the relationship between and impact of variables in the proposed research model on one another, this study circulated a self-administered questionnaire. Our study comprised of a totally internet-based survey that saves time and unnecessary effort by eliminating the need for data entry at the time of analysis. Web-based surveys are the least expensive and can be arranged in less time (Sarstedt & Mooi, 2019). Data collected through the main questionnaire survey was composed of respondents from Finland and Pakistan as of the year 2020. Web-based questionnaires can be carried out to a larger population, even internationally. Web-based surveys are the least expensive and can be arranged in less time (Sarstedt & Mooi, 2019). The online survey made it easy to collect responses from Pakistan during COVID-19. The questionnaire comprised of 104 respondents from Finland and 141 respondents from Pakistan, a total of 245 respondents, and considering those people that read online reviews and go to a restaurant for a meal. The invitation to the questionnaire was followed up by two reminders to most of the respondents in order to get enough number of respondents during a short period. This study was focused on restaurants that are operating in Finland and Pakistan. A cross-cultural study was conducted by comparing the results obtained from respondents in both countries, a developed country, and an underdeveloped country.

This study is causal research, which is used to examine the impact or relationship between variables (Sarstedt & Mooi, 2019) and we are examining the impact of multiple independent variables on mediator variable and dependent variables. Further, Sarstedt and Mooi (2019) discuss that this type of research helps in extracting exact

insights into how variables relate with each other that might suggest some changes in the marketing mix. Also, causal research is the most used research applied by many researchers. This relationship measurement analyzes how changes in one variable impacts on an outcome variable (Sarstedt & Mooi, 2019).

### **3.2 Research strategy**

This study is aimed at identifying the impact of multiple independent variables on two dependent variables with the assistance of a mediator. Hence, it is an Explanatory strategy. The impact of variables was identified with the help of hypothesis testing, considering it as an appropriate method to measure the effect of independent variables on dependent variables with the involvement of a mediating variable. Hypothesis testing seeks to measure the impact, relationship and identify differences between a group of factors (Sekaran & Bougie, 2010).

### **3.3 Sampling technique**

Sampling is the process of selecting cases from a population. Most importantly, we need to focus that the sample we have selected should be representative of the population (Sarstedt & Mooi, 2019). This study used Non-Probability convenience sampling technique, as it depends on situational factors and the researcher does not have control over who ends up in filling the survey (Sarstedt & Mooi, 2019) considering the current situation of COVID-19 virus it as a simple and easy technique to obtain required outcomes. Sarstedt and Mooi (2019) suggest that in convenience sampling researcher should draw a sample from the population, which is close at hand and immediately available. Convenience sampling is affordable and accessible, and respondents are instantly obtainable. However, the researcher needs to eliminate the responses that do not serve the purpose of the study (Etikan, Musa, & Alkassim, 2016). It is better to remove answers where statements become too positive or too negative (Sarstedt & Mooi, 2019). During the data gathering process, three responses were eliminated from Finland, and seven were eliminated from Pakistan because of their inconsistencies with the results.



### 3.4 Data collection

Our study uses primary sources of data collection with the help of a survey questionnaire due to its nature of obtaining responses from customers regarding the factors of online reviews that influence their purchase decision and willingness to give a review. As discussed by Sarstedt and Mooi, (2019) primary data collection can be done through two procedures, observing (observational studies or test markets) the respondents or asking them directly (survey, interview or focus groups). Further, surveys are considered as the most used procedures of data collection during primary sources of data collection (Sarstedt & Mooi, 2019).

### 3.5 Questionnaire formation

Questionnaire items were selected through a multi-item approach. Each variable was measured through various items via factor analysis, which improved validity and reliability of constructs (Erkan, & Evans, 2016). The proposed research model composed of seven independent variables: 1) General attitude towards reviews, 2) Review quality, 3) Review quantity, 4) Review credibility, 5) Review positiveness, 6) Review perceived information, and 7) Review need. There was one mediator variable, mediating the effect of independent variables on dependent variables, listed as Review adoption. Further, this theoretical framework comprises two dependent variables: 1) Willingness to give a review and 2) Purchase decision.

Moreover, this survey gathered demographic information of respondents such as age, gender, and employment status in respective countries. Importance and strength of agreement from respondents on questions were measured through a 5-point Likert scale, ranging from 1 being strongly disagree to 5 strongly agreeing. Likert scale is the most common and popular type of scale being used by researchers (Liu et al., 2016). Likert scale is used to assess the degree of agreement with the statement stated in the questionnaire, ranging from strongly disagree to strongly agree (Sarstedt & Mooi, 2019).

Items used in our study are obtained from previous literature and altered according to the needs of our study. The general attitude towards review, review quality, review quantity and review positiveness had ten items in total, nine items among ten were

borrowed from Park et al. (2007), and one item of review quality was borrowed from Bailey and Pearson (1983). A previous study by Zhang, Zhao, Cheung, and Lee (2014) provided with two items of review perceived informativeness, which we adopt for this study. Review credibility is studied by obtaining two items from Prendergast et al. (2010). Five item scale is used to measure review adoption borrowed from Cheung et al. (2009). In examining consumers' willingness to give review and review need, five statements were adopted from Chu and Kim (2011). Finally, the purchase decision is studied through four statements, previously used by Coyle and Thorson (2001) & Zhang et al. (2014). The entire questionnaire is previously tested and measured by Erkan and Evans (2016).

### **3.6 Description of analysis**

Further, descriptive, regression, and multigroup analysis is used to obtain the required results of this quantitative study. These research designs are mainly used in educational research like this (Thomas, Nelson, & Silverman, 2015). In order to perform this analysis as mentioned above, we use Smart Partial Least Squares (Smart PLS) Structural Equation Modeling (SEM) software to find cause and effect relationship between variables highlighted in the theoretical framework of our study. Descriptive analysis is used to understand the characteristics of a population (e. g. age, gender, and employment status in this study). Independent variables are not manipulated in descriptive analysis, and no claim is made to cause and effect relationship.

As mentioned above, our study uses Smart PLS-SEM to analyse the research framework of this study. PLS is considered a robust and frequently used technique to perform SEM (Ahuja, & Thatcher, 2005; Gefen, & Straub, 1997; Venkatesh, & Morris, 2000). The sample size of this research is small, and according to Chin et al., (2003), this technique can be used for a small sample size to do the SEM. Typically, in comparative analysis, the researcher utilizes variables that they are interested in to draw conclusions based on the findings of the comparative research design regarding group comparisons. The essential function of this analysis is to determine and investigate the differences and similarities between the two data sets. Due to the importance of the comparative design of research, it is believed that most of the studies in this research design are cross-national, which identify differences and similarities between two different groups of people (Richardson, 2018). Cross-cultural or cross-

national studies help in understanding several cultures, languages, and societies and their way of living. In order to understand the behaviour of consumers towards online reviews, this study is based on a cross-cultural context, comparing the two data sets obtained from respondents residing in Finland and Pakistan.

### **3.7 Research Philosophy and Choice**

The foundation of quantitative research is based on the concept of positivism (Haegele, Hodge, & Shapiro, 2020). The philosophy of positivism predicts that the hard reality exists, and it is placed by an external-realist ontology (Fraenkel, Wallen, & Hyun, 2012; Haegele & Hodge, 2015; Pringle, 2000). The positivist researchers try to understand the performance of reality phenomenon to see how it works based on scientific methods (Fraenkel et al., 2012). In order to study the cause and effect relationship of any study, most of the researchers use positivism philosophical approach. Positivism quantitative method in research contains significant quantitative data that tests the statistical hypothesis. Understanding of positivism approach believes that knowledge can be generalized to groups of people among various cultures and time (Haegele, Hodge, & Shapiro, 2020). Thus, this study examines the behaviour of people in two cultural contexts concerning online reviews of restaurants. Further, Haegele and Hodge (2015) believe that everything that happens around the world is a result of cause and effect relationships.

Quantitative research may be judged by various measures suggested by Petty, Thomson, and Stew (2012). These measures include: 1) the level of objectivity assumes that findings are totally targeted at enquiring the results that are not the bias of the researcher; 2) the instrument that is being used in the research has to be reliable by measuring its consistency; 3) internal validity should also be taken into consideration that may enable the results of the study to be attributable to the independent variables; 4) external validity refers to the level of applicability of finding into other contexts and results obtained from the study can be generalized (Petty et al., 2012).

This study is purely based on quantitative methods of data collection; thus, it is based on the mono method, focused on testing of hypothesis, and the process includes accepting and rejecting hypothesis to reach conclusions. Haegele and Hodge, (2015)

explain that generally, quantitative research includes hypothesis testing and research questions, design control and statistical interpretations. The research method of this study is based on the Deductive approach, as it generally leads to quantitative analysis. The deductive approach establishes a research design, also called as a priori that forms a sample to population generalizations (Haegele & Hodge, 2015)

### **3.8 Time horizon**

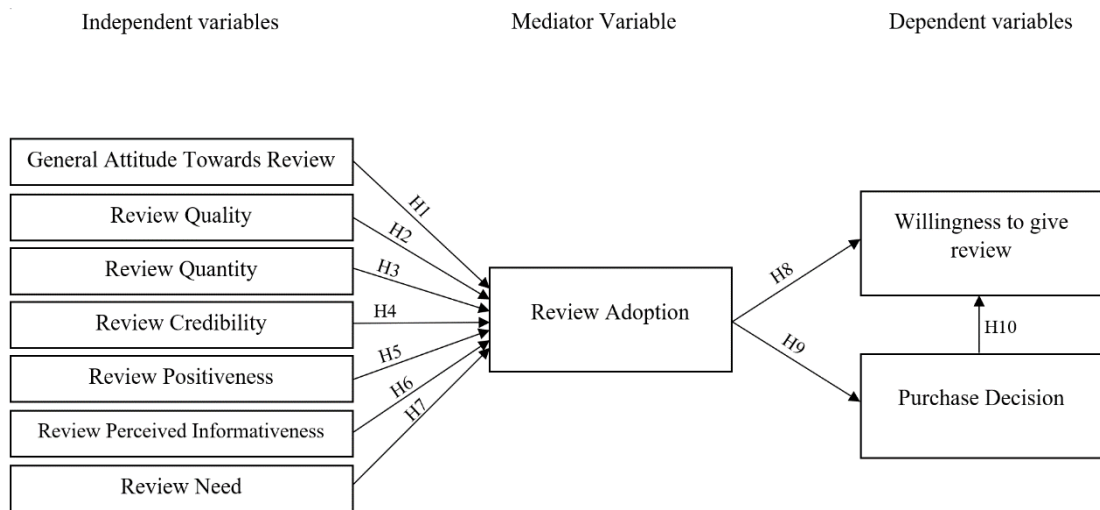
This study is conducted in a single point in time; hence, it is a cross-sectional study. A cross-sectional could provide the results that the researcher is interested in because the sample is taken usually from the entire population (Levin, 2006). A cross-sectional study could be using a limited experiment, case study, grounded theory, or survey. As, the survey being part of this study, we conclude this as a cross-sectional study.

### **3.9 Population**

The population can be defined as a group of units that we intend to make judgements about (Sarstedt & Mooi, 2019). This study defines the population that consists of people living in Finland and Pakistan. This study is targeted at both males and females of all age groups. Due to time constraints, this study was limited to the respondents of only two countries, Finland and Pakistan; however, respondents were selected carefully. This study approaches the respondents in a cautious and structured way to meet the required objectives of the study. In order to acquire useful results, it is made sure that all the respondents have read online reviews at least once in their lifetime and have the purchasing power to visit a restaurant.

### **3.10 Theoretical Framework**

Below illustrated is the theoretical framework developed to fulfil the required objectives of this research. Figure 4 depicts the impact of review usefulness factors on purchase decision and consumers' willingness to give a review through a mediator listed as review adoption. Further, H1-H10 shows the hypotheses that are tested in this study.



**Figure 4. Theoretical framework**

### 3.11 Proposed Hypotheses

H1: Among consumers, the general attitude towards online reviews have a positive association with review adoption.

H2: Among consumers, review quality has a positive association with review adoption.

H3: Among consumers, review quantity has a positive association with review adoption.

H4: Among consumers, review credibility has a positive association with review adoption.

H5: Among consumers, review positiveness has a positive association with review adoption.

H6: Among consumers, review perceived informativeness has a positive association with review adoption.

H7: Among consumers, review need has a positive association with review adoption

H8: Among consumers, adoption of online reviews has a positive association with willingness to give a review.

H9: Among consumers, adoption of online reviews has a positive association with the purchase decision.

H10: Among consumers, Purchase decision has a positive association with their willingness to give a review.

## 4 DATA ANALYSIS AND DISCUSSION

### 4.1 Descriptive Analysis

Descriptive statistics are used in quantitative studies mainly to explain the critical features of collected information and data in the form of numbers. Especially when there is a considerable amount of data obtained from respondents, it would be difficult to conceptualize the outcomes and what the data is predicting if we analyse the raw form of data. Therefore, descriptive statistics are essential to understand the main features of the collection of information.

#### 4.1.1 Demographic Analysis

Descriptive analysis is performed on demographic information of respondents by gathering data on age, gender and employment status of respondents. The percentage-wise data of the respondents are shown in table 3. Most of the respondents in Finland are between the age group of 25-34, consisting of 60.6%. Whereas, the majority of the respondents from Pakistan are between 18-24, consisting of 58.87%. Moreover, Finland's respondents are comprised of 63.5% males and 36.5% females. Whereas, the number of male respondents is slightly lower than females in Pakistan, consisting of 69% and 72% respectively. Among both countries' respondents, the majority of them are either fully employed or Students, considering these people are more likely to be exposed to online reviews and go to restaurants.

**Table 3. Demographic percentage**

Characteristics	Percentage (Finland)	Percentage (Pakistan)
Gender		
Male	63.50	48.94
Female	36.50	51.06
Total	100.00	100.00
Age		
Under 18	1.00	4.96
18-24	15.40	58.87
25-34	60.60	33.33
35-44	15.40	1.42
45-54	4.80	1.42
Over 55	2.90	
Total	100.00	100.00

Employment Status		
Employed full-time	41.3	35.46
Employed part-time	11.5	3.55
Unemployed	7.7	10.64
Student	32.7	37.59
Retired	1	12.77
Self-employed	5.8	0
Total	100	100

#### 4.1.2 Descriptive Statistics

The total number of respondents are 104 for Finland and 141 for Pakistan to be put into the descriptive analysis, which provided with frequency distribution table below. Mean is the arithmetic average that considers the complete information in order to calculate the central tendency of a frequency distribution. The general attitude towards online review, review quality, review positiveness, review adoption and purchase decision are more leaning towards the agreeable side of the scale amongst Finland respondents. The highest mean value of 3.89 is of review positiveness followed by review quality and general attitude towards reviews. Whereas, review need has the lowest mean value of 3.2 among all the variables.

Among Pakistan respondents, most of the responses are leaning towards the agreeable side compared to the responses from Finland. The highest mean value of 3.87 is assigned to review positiveness, followed by a purchase decision with a mean value of 3.72 and review quality with a mean value of 3.64.

The mean values presented in the table below are leaning towards the agreeable side of the scale. Hence, we assume that the data is normally distributed as the responses lie between the agreement and neutral responses of respondents. By referring to the standard deviation shown in the below table, due to the normal distribution of data overall and the standard deviation is lower than mean, the data points tend to be very close to the mean. Hence, we conclude that the standard deviation is smaller than mean, so the data around the mean is more concentrated in results.



**Table 4. Descriptive Statistics (Mean & Standard Deviation)**

	Finland			Pakistan		
	N	Mean	Std. Dev	N	Mean	Std. Dev
ATORs	104	3.56	0.78	141	3.54	0.75
RQL	104	3.63	0.49	141	3.64	0.58
RPI	104	3.40	0.72	141	3.57	0.70
RQT	104	3.30	0.81	141	3.53	0.89
RP	104	3.89	0.70	141	3.87	0.69
RC	104	3.37	0.66	141	3.41	0.64
RN	104	3.20	0.94	141	3.28	0.91
RA	104	3.52	0.70	141	3.60	0.74
WTGR	104	3.37	0.87	141	3.40	1.01
PD	104	3.50	0.67	141	3.72	0.61

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

## 4.2 Multigroup Analysis

The purpose of this research is to investigate the main determinants of review helpfulness that steer consumer purchase decision and their willingness to give a review in a cross-cultural context by taking consumers from Pakistan and Finland. This research has also outlined several factors that compel consumers to review helpfulness. However, this research focuses explicitly on consumers from Pakistan and Finland to do a comparative analysis between the two nations. Primarily, this study has applied Smart PLS as the statistical model to investigate the results of this research that has been construed in the form of research hypotheses. For this research, quantitative research method has been selected. With the help of quantitative research method, primary quantitative data has been intended to collect from the selected sample size. A well-structured questionnaire has been formed to find the main determinants of review helpfulness that steer consumer purchase decision and their willingness to give a review.

### 4.2.1 Finland

First, the data set of Finland consumers are analyzed, and about 104 responses have been received through an online questionnaire. After applying the Smart PLS factor

*Factor Loadings Significant*

**Table 5. Factor loadings (Finland)**

WTGR2	0.94
WTGR3	0.94

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

### *Reliability and Validity*

Reliability analysis is performed to examine the consistency and repetitiveness of responses gathered from the audience (Kirk & Miller, 1986; Rafuls & Moon, 1996). Data gathering of this study was based on the convenient sampling technique. Therefore, the reliability of constructs and the overall reliability of the questionnaire was obtained from Smart PLS. As shown in table 6, the overall reliability of the entire questionnaire for Finland was Cronbach's Alpha 0.925 with a total number of items 31, which is believed to be highly reliable.

**Table 6. Overall Reliability Statistics (Finland)**

N of Items	Cronbach's Alpha
31	0.925

### *The Convergent Validity*

Further, by examining the Cronbach's Alpha, we performed the reliability and validity analysis of each construct shown in table 7 below, which found to be high for all constructs and overall, it is acceptable for all constructs.

Validity investigates the usability of data, whether the data is projecting the results of the phenomenon in which we are interested (Chung et al., 1998). It has been noted in the research of Hair et al. (2013) convergent validity is a theory that combines multiple elements and variables and collaborates them to investigate a concern or a matter. It could either be an issue, concept or hypotheses. The researcher needs to analyze the convergent validity for the research to investigate the values that have already been reflected through the table of factor loadings, average variance and composite reliability extracted. The research of Melchers and Beck (2018) concludes that the factor loading of items should be more than 0.6 in value in order to be statistically significant. In addition to this, the value of Average Variance Extracted (AVE) and Composite Reliability (CR) is required to be above 0.5 and 0.7, respectively. From the findings in the table below, each of the value presented is above the respected

threshold. It means that all of the factors and variables have a higher level of reliability, consistency and validity. We concluded that the adopted instrument has excellent consistency in all constructs.

**Table 7. Construct Reliability (Finland)**

Construct Reliability and Validity			
	Cronbach's Alpha	CR	AVE
ATORs	0.767	0.864	0.683
PD	0.818	0.878	0.643
RA	0.893	0.921	0.701
RC	0.7	0.869	0.768
RN	0.721	0.835	0.718
RPI	0.704	0.835	0.716
RP	0.705	0.869	0.769
RQL	0.701	0.786	0.555
RQT	0.747	0.886	0.796
WTGR	0.913	0.945	0.851

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

### *Model Fitness*

The model is fitted as its standardised root mean square residual (SRMR) value is 0.09, and normed fixed index (NFI) is 0.57 and chi-square is also good, showing the value of 916.543.

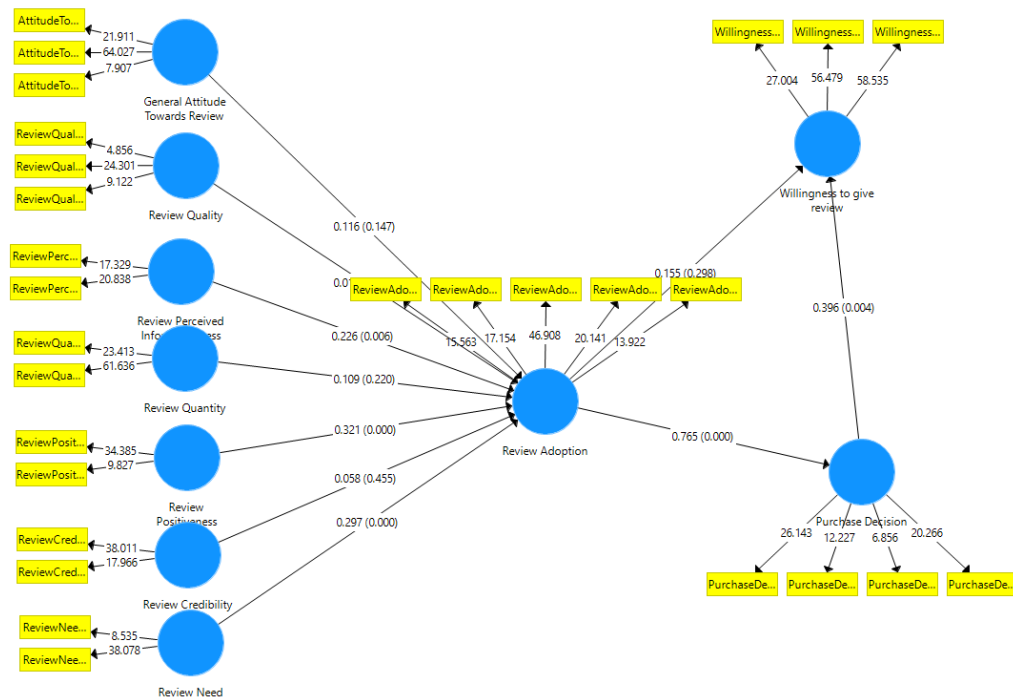
**Table 8. Model Fitness (Finland)**

	Saturated Model	Estimated Model
SRMR	0.079	0.093
d_ ULS	2.561	3.536
d_ G	1.561	1.682
Chi-Square	875.428	916.543
NFI	0.596	0.577

Based on table 8, it is found that the value of SRMR in Saturated Model is 0.079, while the value of the same in the Estimated Model is 0.093. The number is lower than 0.10, which implies that fitness is ensured according to these values. Generally, SRMR value below 0.08 is considered as a good fit (Hu & Bentler, 1999); hence the value in Saturated Model confirms the fitness. Since the value of d\_ ULS is greater than 0.005, therefore it is established that it is fit and there are no discrepancies. Moreover, the

value of Chi-Square also reflects the fitness of the model. However, the NFI value in the table is presented as between 0 and 1, which implies a moderate model fit. The NFI should be at least 0.8 to ensure a good fit (Lohmöller, 1989). Our study relies on other values in table 8 to ensure the fitness of this model.

### Path Analysis



**Figure 5. Path Analysis (Finland)**

### *The Structural Model (Inner Model) or Hypothesis Testing*

The inner measurement of the structural model or in other words, the hypotheses testing for this research has been carried out using the outer measurement model. The evaluation and the testing of hypothesis have been carried out through structural equation modelling using Smart Partial Least Square (Smart PLS) 3.2.4. The purpose of using Smart PLS is to investigate a complicated model and to produce results associated with it, as indicated by the research of Ringle, Wende and Becker (2015). The inner model is tested through bootstrapping of 5000 subsamples along with the methods of resampling.

**Table 9. Hypotheses testing (Finland)**

	Original Sample (O)	Sample Mean (M)	ST Dev	T Statistics (O/STDEV)	P Values	Hypotheses
ATORs -> RA	0.116	0.122	0.080	1.451	0.147	Rejected
PD -> WTGR	0.396	0.393	0.138	2.878	0.004	Accepted
RA -> PD	0.765	0.767	0.051	15.00	0.000	Accepted
RA -> WTGR	0.155	0.156	0.148	1.042	0.298	Rejected
RC -> RA	0.058	0.065	0.077	0.747	0.455	Rejected
RN -> RA	0.297	0.301	0.074	4.012	0.000	Accepted
RPI -> RA	0.226	0.213	0.082	2.754	0.006	Accepted
RP -> RA	0.321	0.308	0.090	3.550	0.000	Accepted
RQL -> RA	0.013	0.025	0.082	0.163	0.871	Rejected
RQT -> RA	0.109	0.103	0.089	1.229	0.220	Rejected

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

This research has been conducted to evaluate ten hypotheses and to investigate whether or not they are accepted. The acceptance or rejection of these hypotheses is investigated through evaluating the P-value. The P-values that are below 0.05 indicate hypotheses that are accepted. While the values of P that are above 0.05 are considered as rejected hypotheses. From the above table 9, we note that the P-values for five of the hypotheses is below 0.05, meaning that these hypotheses are accepted.

Hence, it can be found that review need, review perceived informativeness, review positiveness, has a significant positive association with review adoption. Whereas among consumers of Finland, adoption of online reviews has a positive association with the purchase decision, and purchase decision has a positive association with their willingness to give a review. It can be found that the values of P for these five hypotheses are below 0.05, that means these hypotheses are accepted.

From the analysis of consumers from Finland, it was observed that among consumers of Finland, adoption of online review has no positive association with willingness to give a review. Moreover, H1, H2, H3, H4 and H8, are rejected, which shows no association in given five hypotheses. All the values of P that are above 0.05 were considered as rejected hypotheses.

Therefore, it can be concluded that consumers of Finland are more inclined towards reviews if they feel it is needed, informative and positive. Adoption of online reviews

has seen very much in Finland consumer and has a positive association with the purchase decision. Finally, the purchase decision of Finland consumer has a positive association with their willingness to give a review as they made a final decision about purchasing, so their willingness becomes high to give a review for other consumers.

#### 4.2.2 Pakistan

Then the data set of Pakistani consumers are analyzed, and about 140 responses had received through an online form. After applied the Smart PLS, the factor loading table, reliability table, model fit, and finally, SEM analysis was chosen for a complete analysis of Finland consumers.

##### *Factor Loadings Significant*

The following table 10 presents the factor loading of 28 factors on ten variables. It has been noted that a higher absolute value of factor loading indicates a higher contribution of factor to the variable. The table also accommodates ten extracted components which are then evaluated through analysing the impact of 28 items that are further divided accordingly. It has been observed that the value of factor loading for these variables and factors are all above 0.5, which implies that the desired results are met.

**Table 10. Factor Loadings (Pakistan)**

	ATORs	PD	RA	RC	RN	RPI	RP	RQL	RQT	WTGR
ATORs1	0.79									
ATORs2	0.81									
ATORs3	0.75									
PD1		0.79								
PD2		0.87								
PD3		0.84								
PD4		0.74								
RA1			0.80							
RA2			0.82							
RA3			0.88							
RA4			0.87							
RA5			0.77							
RC1				0.90						
RC2				0.89						
RN1					0.84					
RN2					0.88					
RPI1						0.87				

RPI2	0.89	
RP1	0.88	
RP2	0.89	
RQL1	0.76	
RQL2	0.77	
RQL3	0.78	
RQT1	0.82	
RQT2	0.86	
WTGR1		0.87
WTGR2		0.92
WTGR3		0.91

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

### *Reliability and Validity*

Reliability of constructs and the entire questionnaire responses are obtained from Smart PLS, as mentioned before. As shown in table 11, the overall reliability of the entire questionnaire for Pakistan is Cronbach's Alpha 0.921 with the total number of items 31, which is believed to be highly reliable.

**Table 11. Reliability Statistics (Pakistan)**

N of Items	Cronbach's Alpha
31	0.921

### *The Convergent Validity*

Following the research of Hair et al. (2013), it has been observed that convergent validity can be marked as a theory that relates different factors into one in order to investigate a matter, concept or hypotheses. In order to analyse the convergent validity within a subject area, the researcher needs to investigate the values presented through factor loadings, average variance and composite reliability extracted. According to Melchers and Beck (2018), the factor loading value for items is required to be more than 0.6 and to be significant in the form of statistics. On the other hand, it is essential for the Average Variance Extracted (AVE) to be over the value of 0.5. Lastly, the minimum value of Composite Reliability (CR) should be over 0.7. It has been noted in table 12 that all values are above their threshold, implying a high level of validity, reliability and consistency in between all factors.



**Table 12. Construct Reliability (Pakistan)**

	Cronbach's Alpha	CR	AVE
ATORS	0.713	0.797	0.568
PD	0.826	0.885	0.659
RA	0.885	0.916	0.687
RC	0.75	0.889	0.8
RN	0.753	0.852	0.742
RPI	0.708	0.872	0.774
RP	0.724	0.879	0.783
RQL	0.731	0.716	0.569
RQT	0.785	0.828	0.706
WTGR	0.881	0.927	0.808

(ATORS=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision)

### *Model Fitness*

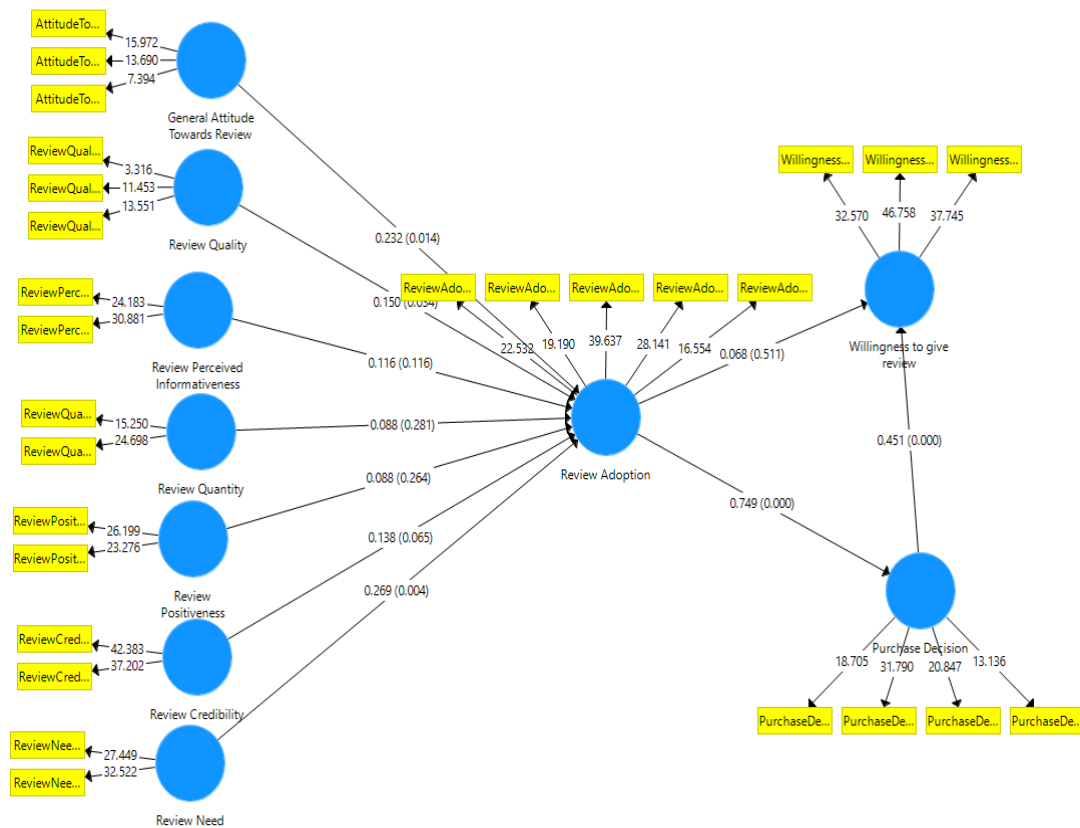
The model is fitted as its SRMR value is 0.085 and NFI is 0.606 and chi-square is also good showing the value of 945.963.

**Table 13. Model Fitness (Pakistan)**

	Saturated Model	Estimated Model
SRMR	0.079	0.085
d_ ULS	2.56	2.923
d_ G	1.105	1.142
Chi-Square	930.262	945.963
NFI	0.612	0.606

Based on table 13, which represents Pakistani consumer analysis, it is found that the value of SRMR in Saturated Model is 0.079 while the value of the same in the Estimated Model is 0.085. The number is lower than 0.10, which implies that fitness is ensured. Since the value of d\_ ULS is greater than 0.005, therefore it is established that it is fit and there is no discrepancy. Similarly, the value of Chi-Square also reflects the fitness of the models. Since the NFI value falls between 0 and 1, we ensure the model fitness based on other values shown in table 13.

## Path Analysis



**Figure 6. Path Analysis (Pakistan)**

### *Predictive Relevance of the Model*

It has been noted through the research of Hair et al. (2017), the predictive power of constructs within research can be investigated through analysing the value of its R-Square and cross validity redundancy, which is also known as the Q-Square. The research also indicates that the value of Q-Square for all the given variables is required to be above 0. Based on the values presented in table 14, it has been observed that all these values are greater than 0, which implies that the results are positive. On the other hand, the research of Alexander, Tropsha and Winkler (2015) indicates that the value of R square is required to be more than 25%. Hence, the results of this research present a positive outcome.

**Table 14. Predictive Relevance of the model (Pakistan)**

	R Square	R Square Adjusted
ATORs	0.478	0.471
PD	0.919	0.918
RC	0.553	0.547
RN	0.467	0.46
RA	0.667	0.663
RPI	0.985	0.985
RP	0.828	0.827
RQL	0.578	0.871
RQT	0.619	0.718
WTGR	0.853	0.647

(ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give review, PD=Purchase decision)

*The Structural Model (Inner Model) or Hypothesis Testing:*

The analysis of inner measurement through the structural model of hypothesis testing is the preceding stage to the outer measurement model—the testing of the hypothesis that is based on the structural equation modelling done through Smart PLS 3.2.4. According to the research of Ringle, Wende and Becker, (2015) Smart PLS is often used in the researchers to present outcomes that are based on complex models as compared to the other approaches of covariances. Furthermore, the inner model is tested by the researcher using re-sampling methods and bootstrapping of 5000 subsamples.

**Table 15. Hypotheses testing (Pakistan)**

	Original Sample (O)	Sample Mean (M)	ST Dev	T Statistics ( O/STDEV )	P Values	Hypotheses
ATORs -> RA	0.232	0.239	0.094	2.479	0.014	Accepted
PD -> WTGR	0.451	0.451	0.108	4.168	0.000	Accepted
RA -> PD	0.749	0.750	0.050	14.97	0.000	Accepted
RA -> WTGR	0.068	0.072	0.103	0.658	0.511	Rejected
RC -> RA	0.138	0.125	0.074	1.849	0.065	Rejected
RN -> RA	0.269	0.255	0.092	2.931	0.004	Accepted
RPI -> RA	0.116	0.124	0.073	1.577	0.116	Rejected
RP -> RA	0.088	0.094	0.078	1.119	0.264	Rejected
RQL -> RA	0.150	0.160	0.071	2.120	0.034	Accepted
RQT -> RA	0.088	0.088	0.081	1.080	0.281	Rejected

ATORs=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give a review, PD=Purchase decision

The findings of this research, as presented in Table 15, show the rejection and acceptance of the hypothesis found in regards with the value criteria of P. The threshold value of p is required to be 0.05. It has been mentioned earlier that this research contains ten hypotheses. Based on the findings presented in this model, it can be found that five of the values concerning the hypothesis are less than the P-value of 0.05.

The findings of this research indicate that among consumers of Pakistan, purchase decision has a positive association with their willingness to give a review. Moreover, among consumers of Pakistan, adoption of online reviews has a positive association with the purchase decision. On the other hand, among consumers of Pakistan, the general attitude towards online reviews have a positive association with review adoption. Review need and review quality has a positive association with review adoption. Five of the values concerning the hypothesis are less than the P-value of 0.05.

While testing rejected hypotheses, we know that among Pakistani consumers, adoption of online reviews found to have no positive association with willingness to give a review. Among Pakistani consumers, review credibility has found no positive association with review adoption. Among consumers, review positiveness and review quantity found no positive association with review adoption. Last hypotheses, which was among Pakistani consumers, review perceived informativeness has a positive association with review adoption also rejected which summarizes that of P that is above 0.05 were considered as rejected hypotheses.

Overall, the consumer analysis of Pakistan, it was found that review need, and review quality matters a lot. Consumers, after making a purchase decision, it is highly likely that their willingness to give the review will increase. Lastly, the general attitude towards online reviews has a positive association with review adoption.

### **4.3 Discussion and answer to the research question**

The table below briefly illustrates the results of the hypothesis that are accepted and rejected for data collected from Finland and Pakistan:

**Table 16. Hypothesis results**

		Results	
		Finland	Pakistan
H1	Among consumers, the general attitude towards online reviews has a positive association with review adoption	Rejected	Accepted
H2	Among consumers, review quality has a positive association with review adoption	Rejected	Accepted
H3	Among consumers, review quantity has a positive association with review adoption	Rejected	Rejected
H4	Among consumers, review credibility has a positive association with review adoption	Rejected	Rejected
H5	Among consumers, review positiveness has a positive association with review adoption	Accepted	Rejected
H6	Among consumers, review perceived informativeness has a positive association with review adoption	Accepted	Rejected
H7	Among consumers, review need has a positive association with review adoption	Accepted	Accepted
H8	Among consumers, the adoption of online reviews has a positive association with willingness to give a review	Rejected	Rejected
H9	Among consumers, the adoption of online reviews has a positive association with the purchase decision	Accepted	Accepted
H10	Among consumers, Purchase decision has a positive association with their willingness to give a review	Accepted	Accepted

This study aims at restaurants to identify the determinants of online review helpfulness that help consumers in review adoption leading towards consumer purchase decision and their willingness to give a review to others. Previous studies have identified the determinants of review helpfulness (Bailey & Pearson, 1983; Cheung et al., 2009; Chu & Kim, 2011; Coyle & Thorson, 2001; Park et al., 2007; Prendergast et al., 2010; Zhang, Zhao, Cheung, & Lee, 2014), which will further be utilised to know their impact on restaurants review adoption that leads consumers toward purchase decision and their willingness to give a review. This study is based on the findings obtained from two countries, Finland and Pakistan, in order to perform a cross-cultural comparison. This study is based on ten proposed hypothesis (H1, H2 through H10) formed through relevant literature on online reviews. The two data sets were measured with the help of multigroup analysis performed on Smart PLS. Finland's data set was composed of 104 responses, while Pakistan had a total of 141 responses.

The impact of eWOM on consumer purchase intention has been previously studied by various authors (Bickart & Schindler, 2001; Chan & Ngai, 2011; Kumar & Benbasat, 2006; Park et al., 2007; Zhang et al., 2010). However, this study extends the tested model, IACM, proposed by Erkan and Evans (2016) and adding three additional online review determinants and one behavioural dependent variable, i.e. consumers' willingness to give a review to apply this model in online reviews of restaurants. Our

results from SEM indicates that H7, H9 and H10 were accepted for Finland and Pakistan. While, the same indicates that H3, H4 and H8 were rejected for both studied countries, projecting review quantity and review credibility as insignificant predictors of review adoption. By rejecting the impact of review quantity on review adoption, our findings are in line with the findings of Racherla, and Friske, (2012). Whereas, by rejecting the impact of review quantity and credibility on review adoption it contradicts with the finding of Zhang et al., (2014) where they support the use of a considerable amount of review quantity and review credibility to be adaptable.

Further, by accepting H9 and rejecting H8, data analysis results indicate that review adoption is a significant predictor of consumer purchase decision in choosing restaurant by accepting H9. Erkan and Evans (2016) proved in their study that review adoption is a significant predictor of the consumer purchase decision and in choosing a restaurant, our study also supports this statement previously proved by Erkan and Evans (2016). Whereas review adoption is an insignificant predictor of willingness to give a review, thus, our study rejects H8 for Finland and Pakistan. Further, the results accept H10 for both studied countries by concluding that consumers' purchase decision is a significant predictor of their willingness to give a review to others. Consumers are not willing to recommend services to others based on online reviews, but they must use the services first, and if they are satisfied, they are willing to give a review to others. Among the three hypotheses that were accepted, H7 claims that review need is the significant predictor of review adoption in both studied countries that help consumers in purchase decision while choosing for a restaurant. Erkan and Evans (2016) identified that review need is an essential element leading to review adoption, which is in favour of our results. Consumers need information, which is why they are more interested in reading online reviews and adopt those reviews to make purchase decisions.

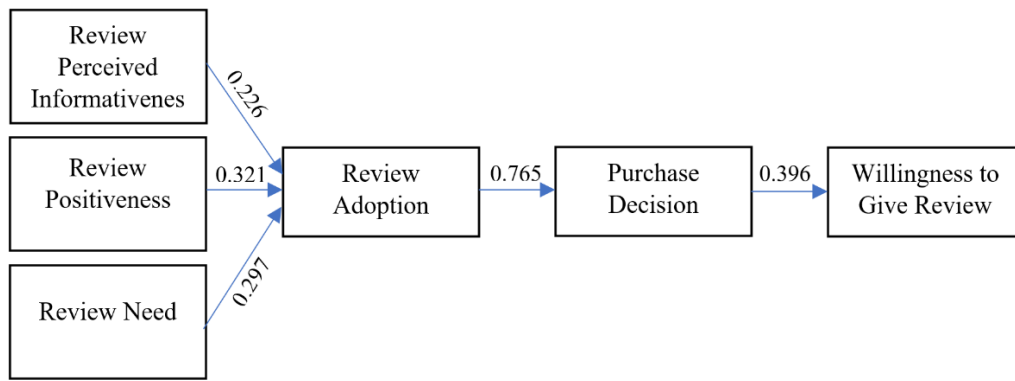
Furthermore, among consumers of Finland, review positiveness and review perceived informativeness are the significant predictors of review adoption. Our results are supported by the suggestions of Zhang et al. (2014) that explains that review informativeness is helpful for consumers in its adoption by reducing the uncertainty, which leads to consumer purchase intention. Moreover, Huang et al. (2015) support the results of this study that review positiveness is a significant predictor of review helpfulness, which we conclude that review positiveness helps consumers in adopting

the review information. Consumers in Finland rely on positiveness of online reviews. When the product is evaluated positively, consumers believe those reviews to be more reliable to adopt that assist them in a purchase decision.

Similarly, consumers adopt reviews that are informative in order to make well-informed purchase decisions. On the other hand, among Pakistani consumers, review positiveness and review perceived information are not significant predictors of review adoption. These results from Pakistan contradicts with the results from Finland, as well as with Zhang et al. (2014) and Huang et al. (2015).

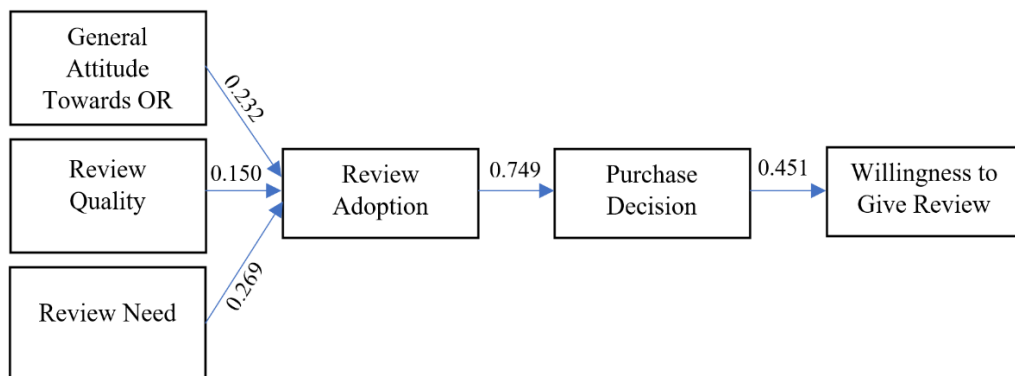
The general attitude towards reviews and review quality is not essential in terms of review adoption for consumers of Finland. Erkan and Evans (2016) concluded that attitude towards reviews is not helpful in review adoption, which is also supported by our results from Finland, whereas, Pakistan results accept H1 claiming that there is an effect of attitude towards online reviews on review adoption of consumers. Pakistani consumers believe that it is always a risk to try a restaurant without reading online reviews, and they prefer to read online reviews before choosing a restaurant. Reading online review helps them in decision making and comparing the quality of different restaurants. Further, review quality is a crucial factor among Pakistani consumers; they consider it useful in terms of review adoption. Erkan and Evans support the usefulness of review quality leading towards review adoption. It might be mainly because Pakistani consumers are careless to write clear and understandable online reviews, making it hard for others to understand. This unclarity makes Pakistani consumers give more importance to the quality of online reviews in order to adopt those reviews.

Among Finland's consumers, review positiveness, review perceived informativeness and review need to influence consumers to adopt online reviews that assist consumers' in a purchase decision. Though, review adoption does not make consumer willing to give a review to others. It depends upon their level of satisfaction after they use the services of a restaurant to recommend the restaurant to others. Review adoption is not the influencer of consumers' willingness to give a review; instead, it takes a longer path of trying out the services of a restaurant first that possibly let consumers give recommendations. Consumer purchase decision has a stronger influence over their willingness to give a review as illustrated in results. The figure below shows the results obtained from Finland:



**Figure 7. Acquired model (Finland)**

On the other hand, according to Pakistani consumers, the general attitude towards online review, review quality and review need are significant predictors of review adoption, helping them in choosing restaurants. Review adoption is significantly predicting consumer purchase decision according to the results of this study. Among Pakistani consumers, purchase decision has a significant impact on their willingness to give a review to others based on their level of satisfaction. The figure shown below summarizes the results obtained from Pakistani respondents:



**Figure 8. Acquired Model (Pakistan)**

Finland's consumers require online reviews to be positive and informative to act upon, while, Pakistan's consumers believe that if online reviews minimize the risk to assist in decision making and quality of online reviews direct them to adopt the reviews. Positiveness and informativeness of online reviews are essential for Finland's consumer to adopt online review information. They believe that these two factors are more helpful while making a purchase decision. Whereas, consumers of Pakistan have a slightly different opinion regarding the usefulness of information that helps them in adopting online reviews. They think that without reading online reviews, it is always



a risk of trying out a restaurant. As, compared to Finland, in Pakistan, new restaurants are opening more frequently, and consumers are doubtful about trying new restaurants.

## 5 SUMMARY

### 5.1 Conclusion

A questionnaire about online review on restaurants was asked from the respondents in Finland and Pakistan to present a cross-cultural study. The results obtained from this study are based on the multigroup analysis performed on Smart PLS software. This study is an extension of a previously studied model (IACM) by Erkan and Evans (2016). Most importantly, we included a post-purchase behaviour element that is not yet been studied, which is consumers' willingness to give a review after adopting a review or purchase decision. Furthermore, we added some additional determinants of review helpfulness borrowed from previous studies to support and extend IACM.

Overall, review need was a common determinant among several others used in this study between the two data sets. Consumers believe that the need for information is an essential and common element between both studied countries. Consumers refer to online reviews due to the lack of knowledge about how to choose a restaurant. They inquire about the factors that are highlighted in online reviews, which help them to adopt the review. Between both countries, the need for information is a common encouraging factor enabling consumers to adopt the review, consequently leading them to try a restaurant. Based on their satisfaction level, consumers attempt to recommend the restaurant to others. These recommendations can either be positive or negative, depending upon how hard the restaurant strives to satisfy consumer needs.

Additionally, the findings from Finland's data suggests that the review should be positive and informative that get consumers to agree with the review. Consumers from Finland think that positive and informative online reviews make it easy for them to decide about a restaurant by eliminating risks. Positive reviews mention all favourable points about a restaurant that makes consumers decide quickly. In addition to being positive, reviews should be filled with expert informative advice that makes consumers completely familiar with the offerings and atmosphere. Consumers consider that online reviews motivate them to choose a restaurant by giving positive reviews that are also filled with relevant, detailed and useful information about the restaurant.

Moreover, the data obtained from Pakistan gives different insights regarding the usefulness of online review elements that help consumers in agreeing with reviews and adopt it. Consumers believe that understandable quality reviews play a crucial role in determining the usefulness of reviews, helping consumers in being more precise about the online reviews. Further, consumers think that online reviews help them in decision making, and they refer to online reviews while choosing a restaurant. So, the general attitude towards online reviews helps them in review adoption leading towards a purchase decision. Online reviews must provide information to consumers that eliminate risks of choosing a restaurant, which will enhance their attitude towards reviews. Consequently, consumers will refer to online reviews every time they decide to go to a restaurant.

## 5.2 Theoretical contributions

The first and foremost contribution of this study is the formation of an extended model that consists of an additional component of consumer behaviour. Consumers' willingness to give review has not been studied before by previous researchers. Erkan and Evans (2016) previously have supported the purchase decision as a resulting factor in their research. We know from the literature that online reviews have an impact on consumers' purchase decision (Bickart & Schindler, 2001; Park et al., 2007; Zhang et al., 2010). So, our study aims to identify the post-purchase determinant in consumer behaviour. By supporting an additional behavioural component into our study, we contribute to the literature about post-purchase behaviour of consumers in online reviewing. This study developed a comprehensive conceptual framework that analyses the determinant of online reviews leading consumers towards adopting review information to make a purchase decision. Our results show that post-purchase behaviour of consumers leads to leaving a review willingly. Though, review adoption does not directly lead towards recommending services to others.

Secondly, Information Acceptance model (IACM) introduced by Erkan and Evans (2016) is formed by combining the Information acceptance model and Theory of Reasoned Action. We further extended this integrated model by including few additional determinants of online review helpfulness (Bailey & Pearson, 1983; Cheung et al., 2009; Chu & Kim, 2011; Coyle & Thorson, 2001; Park et al., 2007; Prendergast

et al., 2010; Zhang, Zhao, Cheung, & Lee, 2014) and an additional behavioural component discussed above. IACM is a comprehensive model comprising electronic Word of Mouth information factors and its impact on the behaviour of consumers, but it lacked the post-purchase behaviour of consumers, and it was limited at the purchase decision.

Thirdly, our study examines online review helpfulness factors in terms of a cross-cultural study. Our study is focused on identifying the online review helpfulness factors that have an impact on consumers to adopt review information and encouraging them to go for a purchase decision that influences them to give a review for others in a cross-cultural context in terms of restaurants. A cross-cultural study on online reviews of restaurants has not been conducted before, so we consider it a contribution to the existing literature. However, a different cross-cultural study is conducted by Kim, Rahman, and Bernard (2020) in UK and USA, considering the hyperlocal restaurants to evaluate intrinsic and extrinsic cues of locally grown food. The highlighted factors are totally dependent on the offering of restaurants (e. g. taste, price and menu information) by analysing online reviews available at TripAdvisor and Google.

The results obtained from this study show similarities and differences between the two studied countries outcomes. Consumers from Finland and Pakistan read online reviews due to the lack of experience in choosing a restaurant and feel that reading online reviews is a need of today to evaluate a restaurant. Review need was highlighted as a shared determinant between the consumers of Finland and Pakistan that leads to purchase decision that is supported by Erkan and Evans (2016), and post-purchase decision involves their willingness to give a review to others regarding the performance and services of a restaurant.

### **5.3 Managerial implications**

The results obtained from this research provide some important implications for restaurants in Finland and Pakistan. First, restaurant businesses should be able to understand the influence of online reviews on the consumers' evaluation process and what factors influence them to adopt a review enabling them in assisting their purchase decision process. Review websites and social media sites are essential for restaurant

businesses, knowing that a massive number of users are active on such platforms, as these online reviewing platforms are considered as an appropriate way to review services (Canhoto & Clark, 2013). Therefore, the online review determinants identified by this study are beneficial in terms of practicality. Results will help businesses in understanding the dynamics of online reviews and its influence on consumer purchase decision via review adoption process.

Secondly, restaurant owners can also identify the factors influencing consumers in writing reviews. Restaurant owners can ask consumers immediately after they had their food at the restaurant for a review. If consumers are not satisfied, a negative experience could be converted into a positive one by addressing the problem on the spot. Businesses need to know about the post-purchase behavioural aspects of consumers to design better marketing strategies that influence consumers to write positive online reviews.

Thirdly, we know from previous studies that mentioned determinants in this study are helpful for consumers, but we are uncertain if consumers are willing to adopt those reviews which can lead them to purchase decisions. As we know from results that consumer purchase decision leads to their willingness to giving a review to others, restaurant owners should develop their marketing strategies to help consumers in contributing to positive reviews. Restaurant businesses should be able to understand the influence of online reviews on the consumers' evaluation process and what factors influence them to adopt a review enabling them in assisting their purchase decision process.

Review websites and social media sites are essential for restaurant businesses, knowing that a massive amount of users are active on such platforms, as these online reviewing platforms are considered as an appropriate way to provide a review based on the services offered. Therefore, the online review determinants identified by this study are beneficial in terms of practicality. Results will help businesses in understanding the dynamics of online reviews and whether consumers are willing to adopt online review or not and its influence on consumer purchase decisions.

Restaurant owners can also identify the factors influencing consumers in writing reviews. Restaurant owners can ask consumers immediately after consumers had their food at the restaurant for a review. Lastly, this study not only identifies the influence

of online review characteristics, but it tells that consumers' attitude towards online reviews leaves an impact on their decision to adopt the review. Restaurant owners/marketers can put their focus and attention on consumers' attitude towards online reviews and should try to improve their attitude toward online reviews. Most people do not think that reading online reviews before visiting a restaurant is a good plan. Restaurant owners should design their marketing strategies accordingly so that they should be encouraging consumers to read online reviews and make them understand the benefits of it. When a consumer reads an online review, he/she adopts the information of the review and chooses a restaurant to try the food there and depending upon their level of satisfaction with the provided services of the restaurant; they wish to give a review. If the review favours the restaurant; there is a chance of more consumers trying the food in that restaurant.

#### **5.4 Limitations and future research directions**

This study is considered with the following limitation during its entire period. This study does not focus a single online platform such as Instagram, Facebook or Twitter, but it considers every online platform that has online reviews. Future studies can limit the study to just one single platform. Moreover, due to COVID-19, this study has not been able to collect enough number of responses due to which NFI values in our study do not support the model fitness; hence, only two countries have been studied. Later studies can be done on more than two countries to make better comparisons. In order to ensure good fitness of model, the sample size should be increased to obtain better threshold values. It is also possible that due to the closure of restaurants during COVID-19 lockdown, consumers have not been able to give accurate answers. However, the obtained results can be generalised with caution depending upon the results achieved from the applied sample. In future research, a larger sample size with different sampling technique will help in generalizing the results, which will give a more comprehensive outlook to the study.

This model can be utilized on various online platforms to understand the usefulness of reviews on each platform. Further, this study was focused on a single moderator variable of online reviews, other moderating variables such as consumer characteristics and situational factors. Situational factors can influence and change the purchasing decision of consumers. Future research can try to understand the

significance of consumers cultural background in review adoption that leads to the consumer purchase decision. Moreover, the influence of control variables can also be identified in upcoming studies to identify the impact of income and price on consumer purchase decision and their willingness in terms of providing reviews to others.

This study was limited to only the indirect effect of online review usefulness determinants to a consumer purchase decision and their willingness to give review through review adoption. A direct effect can be studied in future research in addition to the indirect effect to execute comparisons between results. Another possible future area of research can be studied by identifying the motivations behind consumers intention to give a review to others willingly; those factors behind their motivation can be studied.

This study was based on quantitative methods of data collection, which can be refined by doing a well-designed qualitative study or a combination of qualitative and quantitative methods of data collection. That will help in understanding deeper insights about consumers' motivation to adopt online reviews.

This study is aimed at investigating consumers' perspective of online review helpfulness that encourages them to adopt review, which leads towards purchase decision or recommend service to others. Future study should consider the reviewer helpfulness in review adoption. Consumers should be asked directly about the usefulness of reviewers.

Further, our study is solely focused on online reviews of restaurants in Finland and Pakistan. Future research can be done on other types of services or product categories in a cross-cultural context. Also, different product or services comparisons could be made by analysing online reviews or asking customers directly.

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## APPENDIX

### Questionnaire

#### Variables

General attitude towards reviews  
(Park et al., 2007)

#### Items

Q1: When choosing a restaurant, I always read online reviews  
Q2: When I choose a restaurant, online reviews help me in decision making  
Q3: When I do not read online reviews, it is always a risk to try a new restaurant

Review Quality (Park et al., 2007)  
(Bailey & Pearson, 1983)

Q1: I think that online reviews are understandable  
Q2: I think online reviews are informative  
(Bailey & Pearson, 1983)  
Q3: I think the overall quality of online reviews is high

Review perceived informativeness  
(Zhang, Zhao, Cheung, & Lee, 2014)

Q1: I think reviews provide relevant information about restaurants  
Q2: I think reviews provide detailed information about restaurants

Review Quantity (Park et al., 2007)

Q1: I think length of online reviews helps me in choosing a restaurant  
Q2: I think large number of online reviews helps me in choosing a restaurant

Review positiveness (Park et al., 2007)

Q1: I think positive reviews helps me in choosing a restaurant  
Q2: I think reviewer recommendation helps me in choosing a restaurant

Review credibility (Prendergast et al., 2010)

Q1: I think online reviews are credible  
Q2: I think online reviews are accurate

Review need (Chu & Kim, 2011)

Q1: I often read online reviews because I do not have enough experience in choosing a restaurant  
Q2: I frequently read online reviews when choosing a restaurant

Review adoption (Cheung et al., 2009)

Q1: I agree with the online reviews

	<p>Q2: I obtain knowledge about the restaurant through online reviews</p> <p>Q3: Online reviews make it easy for me to choose a restaurant</p> <p>Q4: Online reviews enhance my effectiveness in choosing a restaurant</p> <p>Q5: Online reviews motivate me to choose a restaurant</p>
Purchase decision (Coyle & Thorson, 2001; Zhang, Zhao, Cheung, & Lee, 2014)	<p>Considering the online reviews that are available on different online platforms</p> <p>Q1: It is very likely that I will choose a restaurant by reading online reviews</p> <p>Q2: I will choose the restaurant next time when I decide to go to a restaurant</p> <p>Q3: I will definitely try the restaurant</p> <p>Q4: I will recommend the restaurant to my friends and family</p>
Willingness to give review (Chu, S. & Kim, Y. (2011).	<p>Q1 I will recommend the restaurant to others based on the online reviews I read</p> <p>Q2 I will pass interesting information regarding restaurant to others by reading online reviews</p> <p>Q3 I will pass positive information about the restaurant to other group of people by reading online reviews</p>

### Pearson Correlations

Tables below show the correlation between variables, and we noted that overall relationships among variables are positive. These tables demonstrate the detailed description of relationship among independent, moderating and dependent variables, based on their results obtained from a total number of 245 respondents. We can see an appropriate pattern of the relationships between constructs. Overall, willingness to review has positive weak linear relationship with all independent variables with values falling below the  $r$  value of +0.5, though, it has moderate uphill relationship with purchase decision. Further, purchase decision has overall moderate positive relationship with all independent variables and it has a strong uphill linear relationship with review adoption.

Moreover, Table 19 projects the overall relationship of all predictors used in this study on willingness to give review (i. e. weak positive relationship with  $r=0.461$ ), purchase decision (i. e. Strong positive linear relationship with  $r=0.754$ ) and Review Adoption (i. e. Strong positive linear relationship with  $r=0.811$ ).

Pearson Correlations

	ATORS	RQL	RPI	RQT	RP	RC	RN	RA	WTGR
ATORS	1.00								
RQL	.454**	1.00							
RPI	.356**	.540**	1.00						
RQT	.431**	.436**	.494**	1.00					
RP	.460**	.365**	.447**	.549**	1.00				
RC	.393**	.525**	.485**	.421**	.416**	1.00			
RN	.605**	.509**	.459**	.476**	.453**	.498**	1.00		
RA	.613**	.553**	.575**	.589**	.604**	.555**	.674**	1.00	
WTGR	.323**	.450**	.403**	.291**	.315**	.314**	.325**	.428**	1.00
PD	.535**	.534**	.573**	.533**	.545**	.528**	.630**	.738**	.503**

(ATORS=Attitude towards online review, RQL=Review quality, RPI=Review perceived informativeness, RQT=Review quality, RP=Review positiveness, RC=Review credibility, RN=Review need, RA=Review adoption, WTGR=Willingness to give review, PD=Purchase decision)

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Pearson Correlations

	Predictors	RA	WTGR	PD
Predictors	1.00			
RA	.811**	1.00		
WTGR	.461**	.428**	1.00	
PD	.754**	.738**	.503**	1.00

(Predictors=Sum of all independent variables, RA=Review adoption, WTGR=Willingness to give review, PD=Purchase decision)

\*\*. Correlation is significant at the 0.01 level (2-tailed).

## Mediator Analysis

### Purchase decision

Path a. The effect of all predictors is significant on review adoption with  $p<0.01$ . The co-efficient for predictors is 1.041. The co-efficient indicates that for each consumer accepting the online review information, we can expect the review adoption to increase by an average of 1.041. Hence, we conclude that predictors predict review adoption.

Path b. The effect of review adoption is significant on purchase decision with  $p<0.01$ . The co-efficient for review adoption is 0.33. The co-efficient indicates that for each

consumer adopting online reviews controlling for all predictors, we can expect purchase decision to increase by an average of 0.33. Hence, we conclude that review adoption predicts purchase decision controlling for predictors.

Path c'. The effect of predictors is significant on purchase decision with  $p < 0.01$ . The co-efficient for predictors is 0.522. The co-efficient indicates that for each consumer accepting the online review information controlling for review adoption, we can expect purchase decision to increase by an average of 0.522. Hence, we conclude that predictors predict purchase decision controlling for review adoption.

Path c. The effect of predictors is significant on purchase decision with  $p < 0.01$ . The co-efficient for predictors is 0.865. The co-efficient indicates that for each consumer accepting the online review information, we can expect purchase decision to increase by an average of 0.865. Hence, we conclude that predictors predict purchase decision.

#### *Mediator Analysis Equations*

- 1) Predictor variables (independent variables) predict purchase decision – Path c
  - a.  $F(1,243) = 320.05, p = <0.01, R^2 = 0.568$
  - b.  $b = 0.86, t(243) = 17.9, p < 0.01$
- 2) Predictor variables predict review adoption – Path a
  - a.  $F(1,243) = 466.86, p = <0.01, R^2 = 0.66$
  - b.  $b = 1.04, t(243) = 21.61, p < 0.01$
- 3) Predictors and review adoption together predicting purchase decision
  - a.  $F(2,242) = 193.24, p < 0.01, R^2 = 0.615$
  - b. Review adoption variable predicts purchase decision – Path b
    - i.  $b = 0.33, t(242) = 5.41, p < 0.01$
  - c. Predictor variables no longer predict purchase decision or is lessened predicting purchase decision – Path c'
    - i.  $b = 0.522, t(242) = 6.67, p < 0.01$

Outcome variable: Review Adoption

#### *Model summary*

R	R Square	F	df1	df2	p
0.811	0.658	466.863	1.000	243.000	0.000
Model	coeff	se	t	p	

constant	-0.060	0.170	-0.356	0.722
Predictors	1.041	0.048	21.607	0.000

Outcome Variable: Purchase Decision

#### Model summary

R	R Square	F	df1	df2	p
0.784	0.615	193.240	2.000	242.000	0.000

Model	coeff	se	t	p
Constant	0.634	0.162	3.922	0.000
Predictors	0.522	0.078	6.674	0.000
Review Adoption	0.330	0.061	5.407	0.000

Total Effect Model: Outcome variable Purchase decision

#### Model Summary

R	R-sq	F	df1	df2	p
0.754	0.568	320.055	1.000	243.000	0.000

Model	Coeff	se	t	p
Constant	0.614	0.171	3.596	0.000
Predictors	0.865	0.048	17.890	0.000

Direct and Indirect effects of Predictors on Purchase decision

#### Total effect of Predictors on Purchase decision

Effect	se	t	p
0.865	0.048	17.890	0.000

#### Direct effect of Predictors on Purchase decision

Effect	se	t	p
0.522	0.078	6.674	0.000

#### Indirect effect of Predictors on Purchase decision

Effect
Review Adoption
0.343

### Willingness to Give Review

Path a. The effect of all predictors is significant on review adoption with  $p < 0.01$ . The co-efficient for predictors is 1.04. The co-efficient indicates that for each consumer accepting the online review information, we can expect the review adoption to increase by an average of 1.041. Hence, we conclude that predictors predict review adoption.



Path b. The effect of review adoption is insignificant on willingness to give review with  $p=0.103$ . The co-efficient for review adoption is 0.21. The co-efficient indicates that for each consumer adopting online reviews controlling for all predictors, we can expect willingness to give review to increase by an average of 0.21. Hence, we conclude that review adoption does not predict consumers' willingness to give review controlling for predictors.

Path c'. The effect of predictors is significant on purchase decision with  $p<0.01$ . The co-efficient for predictors is 0.56. The co-efficient indicates that for each consumer accepting the online review information controlling for review adoption, we can expect willingness to give review to increase by an average of 0.56. Hence, we conclude that predictors predict willingness to give review controlling for review adoption.

Path c. The effect of predictors is significant on willingness to give review with  $p<0.01$ . The co-efficient for predictors is 0.78. The co-efficient indicates that for each consumer accepting the online review information, we can expect willingness to give review to increase by an average of 0.865. Hence, we conclude that predictors predict willingness to give a review.

#### *Mediator Analysis Equations*

- 1) Predictor variables (independent variables) predict willingness to give review – Path c
  - a.  $F(1,243) = 65.55, p = <0.01, R^2 = 0.21$
  - b.  $b = 0.78, t(243) = 8.1, p < 0.01$
- 2) Predictor variables predict review adoption – Path a
  - a.  $F(1,243) = 466.86, p = <0.01, R^2 = .66$
  - b.  $b = 1.04, t(243) = 21.61, p < 0.01$
- 3) Predictor variables and review adoption together predicting willingness to give review
  - a.  $F(2,242) = 34.34, p < 0.01, R^2 = 0.22$
  - b. Review adoption variable predicts willingness to give review – Path b
    - i.  $b = 0.21, t(242) = 1.64, p = 0.103$  (Non-significant)
  - c. Predictor variables no longer predicts willingness to give review or is lessened predicting willingness to give review – Path c'
    - i.  $b = 0.56, t(242) = 3.43, p < 0.01$  (significant)

Outcome variable: Review Adoption

Model summary

R	R Square	F	df1	df2	p
0.811	0.658	466.863	1.000	243.000	0.000

Model	coeff	se	t	p
constant	-0.060	0.170	-0.356	0.722
Predictors	1.041	0.048	21.607	0.000

Outcome Variable: Willingness to give review

Model summary

R	R Square	F	df1	df2	p
0.470	0.221	34.341	2.000	242.000	0.000

Model	coeff	se	t	p
Constant	0.689	0.338	2.039	0.043
Predictors	0.561	0.164	3.426	0.001
Review Adoption	0.209	0.128	1.637	0.103

Total Effect Model: Outcome variable Willingness to give review

Model Summary

R	R-sq	F	df1	df2	p
0.461	0.212	65.550	1.000	243.000	0.000

Model	Coeff	se	t	p
Constant	0.677	0.339	1.995	0.047
Predictors	0.778	0.096	8.096	0.000

Direct and Indirect effects of Predictors on Willingness to give review

Total effect of Predictors on Willingness to give review

Effect	se	t	p
0.778	0.096	8.096	0.000

Direct effect of Predictors on Willingness to give review

Effect	se	t	p
0.561	0.164	3.426	0.001

Indirect effect of Predictors on Willingness to give review

Effect
Review Adoption
0.217